

## **DECLARATION**

I, Célestin Musekura, declare that

- (i) This thesis is based, except where otherwise indicated, on my original research.
- (ii) This thesis has not been submitted for any degree or examination at any other university.
- (iii) This thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as such.
- (iv) Where other written sources have been quoted
  - a) their words have been re-written but the general information attributed to them has been referenced;
  - b) where their exact words have been used, quotation marks have been used, and a reference added.
- (v) This thesis does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged with details of the source being provided in the thesis and in the references sections.

Signed:.....

## **DEDICATION**

The thesis is dedicated to my beloved wife, **Eugénie BYUKUSENGE**, and my dear daughters, **Grace INGABIRE and Espérance INEZA**, for their constant love and encouragement, and for prayers devoted to me during the time of doing this hard and for me so important work towards the completion of the PhD degree.

This work is yours.

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I would like to express my sincere gratitude specifically to:

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## **ABSTRACT OF THE THESIS**

The Gikongoro Agricultural Development Project (GADP) was implemented in Gikongoro in 1990 and terminated in 2001. It covered 83,508 ha with 250,000 habitants and had a target group of 42,000 farm families, with an estimated total budget of U\$ 31.2 million. Its objectives focused on land development, increase of farm crops, environmental conservation and protection, stores and roads construction and bank loans for small farmers. Its expected impacts included the increase of incomes, enhancement of nutritional status and the resolution of the employment problem. The project was closed without achieving these goals. On the basis of this situation, the following research questions were raised:

- How and to what degree did inadequate processes of management and evaluation contribute to the GADP failure?
- How and to what degree did external environmental events prevent the GADP from achieving its objectives?
- How was the participatory development approach used by the GADP in the process of learning?
- What were the main causes that led the GADP to fail?
- What could be done and what lessons could be drawn from this experience for the benefit of ongoing and future projects operating in Rwanda?

The answer to these questions required a review of literature regarding project management and evaluation principles and organizational environment. The methods used for data collection included documentation, systems thinking, observation and interviews. Thematic analysis and systems thinking were used for data analysis. The findings located the reasons for GADP failure in different problem areas. The civil war of October 1990 and the genocide of April 1994, and frequent droughts, swept away the GADP resources. The GADP failed to identify the real needs of the beneficiaries (farmers), coordinate its stakeholders' activities, and cooperate and communicate adequately with them. This resulted in delays and budget overruns. The failure to bring together management and evaluation caused the project to be ineffective and inefficient in its management of resources. The GADP closed having made no significant positive impacts on the farmers, especially women. To prevent future potential failures, it is recommended to introduce systems thinking in Rwandan higher education programs and to develop strong partnerships between public and private role players.

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

AGECO: Agency Accounting Consultants. It was a GADP contracting company in accounting systems

AGROTECH: Agrotechnology and Foods Sciences and Sciences Group. It was a GADP contracting company for procurement of inputs for farmers

ARDI: Association for Integrated Rural Development

BIT: International Organization for Employment

CARITAS: Catholic Organization for Poor Assistance

CBs: Cooperative Banks

CEPEX (French abbreviation): Centre for the Promotion of the Exports. It was an external contracting company in charge of GADP evaluation

CNIA: National Center for Artificial Insemination

COMESA: Common Market for Eastern and Southern Africa

CPM: Critical Path Method

EAC: East Africa Community

ETIRU: A wheat-grinding factory based in Ruhengeri (Northern region of Rwanda)

FACAGRO: Faculty of Agriculture

FAO: Food and Agriculture Organization of the United Nations

FDI: Foreign Direct Investment

FENU: United Nations Fund for Equipment

FIAS: Foreign Investment Advisory Service

FIDA: International Fund for Agricultural Development

GADP: Gikongoro Agricultural Development Project

GDP: Gross Domestic Product

GHG: Green House Gas

HIMO: Labour-Intensive Public Works

HIV/AIDS: Human Immunodeficiency Virus AIDS / Acquired Immune Deficiency

ICT: Information and Communication Technology

IDA: International Development Association

IFAD: International Fund for Agricultural Development

IFC: International Finance Corporation

IMF: International Monetary Fund

INADES: African Institute for Economic and Social Development  
 INP: Initial National Communication  
 ISAE: Institute of Sciences for Agriculture and Animal Resources.  
 ISAR (French abbreviation): Rwandan Agricultural Research Institute  
 IT: Information Technology  
 IWACU: Training Centre and Cooperatives Research  
 JRC: Joint Railway Concession  
 Labour  
 LED: Local Economic Development  
 Mg: Mega  
 MIJEUMA: Ministry for Youth, Sport and Culture  
 MINAGRI: Ministry of Agriculture  
 MINALOC: Ministry of Local Government, Community Development and Social Affairs  
 MINEFIN: Ministry of Finance and Economic Planning  
 MINIFOTRA: Ministry of Public Service, Skills Development, Vocational Training and  
 MINITRAPE: Ministry of Public Works (Civil Engineering)  
 MSSEs: Micro and Small Sector Enterprises  
 MSU: Michigan State University  
 NAPA: National Adaptation Program of Action on Climate Change  
 NGO: Non Government Organization  
 NPK: Neutral Player Kill  
 NUR: National University of Rwanda  
 OBS: Organization Breakdown Structure  
 PAIB: Supporting Program for Basic Initiatives  
 PAM (French abbreviation): World Food Program  
 PAR: Participatory Action Research  
 PEARL: Partnership for Enhancing Agriculture in Rwanda through Linkages  
 PIA: Project for Intensification of Agriculture  
 PNAS: National Program of Social Action  
 PNASS: National Program of Social Action  
 PNUD: United Nations Program for Development  
 PSTP/HIMO: A GADP contracting company which was in charge of constructing GADP's  
 infrastructures (roads, and storerooms) with the use of labour-intensive public works

R&D: Research and Development  
 RDAS: Regional Direction of Agricultural Services  
 RIEPA: Rwanda Investment and Export Promotion Agency  
 RIPA: Rwanda Investment Promotion Agency  
 RITA: Rwanda Information Technology Authority  
 RRA: Rwanda Revenue Authority  
 SEGEAC: A GADP's contracting company in project planning  
 SMEs: Small and Medium Enterprises  
 SPPW: Special Program of Public Works  
 STI: Science, Technology and Innovation  
 Syndrome  
 TV: Television  
 UBPR: Union of Cooperative Banks  
 UK: United Kingdom  
 UKZN: University of KwaZulu-Natal  
 UN: United Nations  
 UNCDF: United Nations Centre for Development Fund  
 UNCHS: United Nations Centre for Human Settlements  
 UNCTD: United Nations Conference on Trade and Development  
 UNDP: United Nations for Development Program  
 UN-HABITAT: United Human Settlements Program  
 UNICA: Network of Universities from Capitals of Europe  
 UNICEF: United Nations International Children's Emergency Fund  
 UNICOOPAGI: Agricultural Cooperatives of Gikongoro  
 UNRISD: United Nations Research Institute for Social Development  
 US: United States  
 USAID: United States Agency for International Development  
 VAT: Value Added Tax  
 WB: World Bank  
 WBS: Work Breakdown Structure  
 WFP: World Food Program  
 WHO: World Health Organization

## **Currency**

\$ EU stands for Euro dollars. The currency is specifically used in the European Economic Community. 1 \$ EU = 1.3959 USD (Exchange rates on 04/03/2011).

USD: United States Dollars

Frw: Rwandan Franc (local currency)

## **Measures**

ha: hectare

kcal: kilocalories

kg: kilogram

km<sup>2</sup>: square kilometer

m: meter

mm: millimeter

MW: Mega Watt

# **CHAPTER ONE: INTRODUCTION**

## **1.1 THE GADP CONTEXT**

The economy of Rwanda depends mainly on agriculture. Major food crops are dry beans, sweet potatoes, cassava and plantains. The principal crops for export include coffee, which represented over 60% of the total earnings from export in 2005 (Ministry of Finance and Economic Planning, 2007 :). The manufacturing sector is largely concerned with tobacco, basic consumer products, food products, and beverages. The Rwandan economy has, however, been negatively affected by the fact that the country is landlocked: by the genocide of 1994; by the drop in international coffee prices; droughts; and AIDS (Acquired Immune Deficiency Syndrome), which disease has devastated rural communities (individuals as well as families) and aggravated their vulnerability through the growing number of orphans and the loss of knowledge, income and productive labour (Cooper et al., 2008).

In Rwanda, particularly in the southern region (Gikongoro province), people are very poor. But households most severely affected by poverty are those headed by women. People in Gikongoro province do not have enough resources in terms of land or livestock. The demand for farmland is increasing while the available green land is decreasing with the result that not enough domestic animals can be reared in order to produce the manure needed to keep the small portions of farmland fertile (Olson, 1994).

Nearly 93% of Rwandans are employed in the agriculture sector, mostly at the subsistence level (Lahmeyer, 2004). Almost 2 % of the population works in the industrial sector against 8% employed in the services sector (United Nations Peace Operations, 2001). However, as Table 1-1 indicates, the position of agriculture in Rwanda's economy is very significant because, on average, agriculture provided 37.7 % of GDP in the period from 1996 to 2000 and 36.4% in the period from 2001 to 2006 (Ministry of Finance and Economic Planning, 2007).

**Table 1-1: The position of agriculture in Rwanda's economy in terms of GDP (annual average in percentage)**

	Share of total GDP 1996-2000	Share of total GDP 2001-2006
<b>Gross Domestic Product (GDP)</b>	100.0	100.0
<b>AGRICULTURE</b>	<b>37.7</b>	<b>36.4</b>
Food crop	31.9	31.4
Export crop	1.0	1.1
Livestock	3.0	2.2
Forestry	1.5	1.3
Fisheries	0.3	0.4
<b>INDUSTRY</b>	<b>15.1</b>	<b>14.2</b>
Quarrying and mining	0.3	0.6
Manufacturing	8.2	6.8
Of which Food	1.5	1.7
Beverages, tobacco	4.2	2.5
Others	2.4	2.7
Water, electricity and gas	0.6	0.5
Construction	6.0	6.3
<b>SERVICES</b>	<b>41.9</b>	<b>43.8</b>
Wholesale & retail trade	10.7	9.7
Restaurants and Hotels	0.8	0.9
Communication, storage, transport	4.8	6.0
Insurance and Finance	2.6	3.5
Real state, business services	10.3	9.6
Public administration, education, health	12.4	13.2
Other personal services	0.3	0.9
<b>ADJUSTMENTS</b>	<b>5.4</b>	<b>5.7</b>
Less: Imputed bank service charge	-1.6	-1.7
VAT and other product taxes	7.0	7.4

Source: Ministry of Finance and Economic Planning (2007)

Furthermore, an important factor is that Rwanda has a high population density of 337 people per km<sup>2</sup> (The World Bank Group, 2007) and an average annual population growth rate of 2.6 % for the period from 2002 to 2006 (Tourism Investment Conference, 2007). In the period 2001-2006 annual average declined by 3.6% compared to the period 1996-2000 (Ministry of Finance and Economic Planning, 2007).

During the period from 1996-2000, the agricultural growth rate gradually increased by 37.7%, but declined to 36.4% in the period 2001-2006. This situation can be explained by the lack of investment in agriculture and the decreasing available farmland, which in turn was due to the



growth of population density after the civil war of October 1990 and the genocide of April 1994 (Ministry of Agriculture and Animal Resource, 2008).

In attempts to deal with these changes, the government of Rwanda initiated many agricultural projects throughout the country including the Gikongoro Agricultural Development Project (GADP). It was implemented in 1990 in the above-mentioned circumstances in the province of Gikongoro, a southern region of Rwanda, and it was terminated in 2001. It is clear that the project was implemented in difficult times because of the war that was engaged in 1990, and the genocide in 1994. IFAD (1993) and GADP (2001) state that at the beginning, the project covered 7 municipalities out of a total of 13 and inherited much from previous projects. IFAD (1993) adds that, from 1976 and before the implementation of the GADP, a number of agricultural projects in the region had received significant funding from the UNDP (United Nations for Development Program). The funding was destined for reforestation and land conservation, for the training of farmers and for general agricultural growth, specifically potato- and wheat farming. The Project for Intensification of Agriculture (PIA) which was one of the funded projects was of significant impact on the GADP.

About 500,000 inhabitants live in the region covered by the GADP, at a high altitude (1,800 m). The annual rainfall is 1600 mm. However, the soil is acidic and the abrupt contrasts of levels in the landscape led to erosion problems. Areas at a very high altitude are not suitable for pastureland, while there is about 2,000 ha of marshland in the lowest part of the valleys. These need intensive labour so as to improve the fertility of the soil. In Gikongoro, farmers grow many food crops such as sweet potatoes, cassava, sorghum, and maize. Coffee is one of the main cash crops. The livestock, widely dispersed on farm - and pastureland, contributes little to the farms' incomes (IFAD, 1993).

To deal with these challenges, the GADP needed important funds. IFAD (1993) asserted that the total projected budget of the GADP was US\$ 24.2 million along with an extra US\$ 7.0 million for contingencies. According to IFAD (1993), the main funders were the International Fund for Agricultural Development (IFAD) itself (36%), beneficiaries who contributed 25%, the government of Rwanda (17%), the United Nations Centre for Development Fund (UNCDF) (12%) and the United Nations for Development Program (UNDP) (10%).

IFAD (1993) listed as the main objectives to be achieved by the GADP, the improvement of services, of food security and agriculture, and the increase of small-scale incomes in the farming sector. This meant that the project would have to lead to an increase in the production of livestock, food crops and cash crops (potatoes and wheat). The project also had to develop methods for improving soil conservation and fertility. The intentions for the project extended to helping the cooperatives of small-scale farmers to get agricultural credits, and the construction of roads and stores for farm cooperatives. Unfortunately, the GADP was terminated in 2001 without achieving these last objectives.

According to the Organization for Economic Cooperation and Development (2001:41-46), the success of agricultural development projects depends on the extent to which they achieve social, economic and environmental objectives. They have to produce food and industrial crops safely and efficiently, maintain habitats for wildlife and conserve landscapes on agricultural land and meet a growing market demand, without degrading the environment and natural resources (through pollution, water depletion and soil erosion). Projects such as these play an important role in the national economy by positively influencing levels of, and changes in, agricultural production, employment, income, education (basic agricultural training and environmental and farm management practices), farm structures (sizes and numbers of farms), as well as the adoption of technological change and government policies concerning the agricultural sector.

The current study centres on an assessment of the causes for the GADP's failure. To achieve such an assessment, a thorough evaluation of the GADP management is necessary. Management is particularly concerned with planning, resources and partnership relationships. In this evaluation particular attention needs to be paid to general developments that occurred during the existence of the GADP. According to the United Nations Centre for Human Settlements (2003), the evaluation of a project is of great importance and should take into consideration the relevance of the project, its coherence, effectiveness, efficiency and impact and it should help to identify lessons, learned from the implementation of the project or program so that necessary changes can be made.

## **1.2. PROBLEM STATEMENT**

The GADP was adversely affected by a number of factors, right from the early stages of its establishment. In October 1990 the civil war broke out in the northern region of Rwanda. Communication and transport networks were interrupted, which made it very difficult for the

GADP to get to its upstream and downstream markets (GADP, 2001). People fled towards the southern region of Rwanda, where the GADP was located. To get firewood, they had to cut down forest trees, which had been planted to protect the soil against erosion. This immigration, combined with the serious drought that struck the region in 1990, considerably reduced the harvest in the Gikongoro province, particularly in the area covered by the GADP. In this period, many changes were made in the central government, especially in the Ministry of Agriculture (MINAGRI) and these in turn affected the GADP leadership (GADP, 2001) as the project was under the direct guardianship of the Ministry. The project was privileged for three years in that it had sufficient human resources, a director who was an expert in management and agricultural engineering, and expatriate experts in agriculture. This did allow the GADP to achieve its objectives of promoting and developing activities in relation to farming, forestation and reforestation, protection of soil against erosion and excavation work for terracing. However, the genocide of April 1994 swept away many of the project's resources, both human and material. Besides, ever since 1990, Rwanda had experienced difficult times leading to a reduction in the number of expatriate experts as a result of decreased sponsorship.

In addition to these negative external environmental elements, the phases of planning and implementation were difficult for the GADP because it was not able to identify the real needs of its stakeholders, particularly those of farmers who were the main beneficiaries, to adequately assess the project's impact and to take appropriate action (IFAD, 1993). The specific groups targeted by the project represented 90% of the population and included women and small farmers (IFAD, 1993). Women, however, were not fully integrated in the project whereas they represented 60% of small farmers (GADP, 2001).

The GADP was involved in many activities such as research and development focused on monitoring and evaluation, training for farmers, agro-forestry, production of livestock and seed, agricultural loans, valley and upland development, construction of storerooms for the harvest of farm cooperatives, road rehabilitation and construction, and promotion of micro and small business (IFAD, 1993). These activities were too many for the GADP and besides there was the fact that the budget of \$EU 35.6 million was not sufficient to complete the project within a period of 7 years (Bguyonb and GADP, 1993). The GADP had a large number of stakeholders such as training centres, farmers, contractors and sponsors. As the amount of tasks proved beyond the GADP's capacities, some stakeholders were subcontracted to training centres, road

construction and Cooperative Banks (CBs). But the project was not able to coordinate their activities (Bguyond and GADP, 1993).

Thus, the GADP and MINAGRI tried to work together with CBs as subcontractors for the provision of credits to the farm cooperatives. But the alternative failed (GADP, 2001) because the CBs were not interested in investing money in social and economic development in the rural sector and their contractual relationships with the GADP were not strong. The CBs were also reluctant to grant loans to farmers because most of them were already not able to pay back loans that they had received from previous projects. That is why, in 1993, the total amount of bank loans amounted to no more than 12,200,000 FRW (that is almost US\$ 23,922) for 90 cooperatives and individual farmers (Bguyonb and GADP, 1993). In addition to this, investment in the agricultural sector through bank loans was not a viable option for farmers because of crop diseases that specifically affected potatoes and because the size of the market (especially for wheat) was small. Bank loans would cover investment in, for example, crop and plant seeds, but farmers wanted to invest in livestock (IFAD, 1993).

As IFAD (1993) indicated, the GADP had failed in the areas of construction and maintenance of infrastructure such as roads and storerooms. For instance, it was estimated that the construction of roads would have been completed by the end of 1995 at an annual rate of 40 kilometres. But the work was held up because of delays in the delivery of materials and the completion rate was only 12%. This created overspending of the available budget. The roads which were available deteriorated because of a lack of maintenance. This was the responsibility of local governments. Bguyonb and GADP (1993) add that terraces were constructed to protect soil against erosion but the beneficiaries (farmers) did not want to spend money and did not take good care of them. The same attitude was displayed with regard to the protection and maintenance of forests planted by the GADP.

Similarly, IFAD (1993) and Bguyonb and GADP (1993) state that the GADP planned and constructed 26 stores in addition to 27 which had been constructed by PIA as it was expected that the harvest of food and cash crops would increase. Instead the harvests decreased because of environmental and technical constraints resulting from activities aimed at farmland extension. This decrease was also caused by the buying of costly and unaffordable inputs and the inability of small-scale farmers to use new agricultural techniques suitable for improving soil fertility and conservation. Seeds were inadequate and agricultural activities were apparently not profitable,

while at the same time the GADP withdrew from the financing of inputs and crops. All farmers used uniformly new techniques regardless of their specific needs and priorities. The market for the products was found to be too small, and the prices proposed by the project to the farmers were low. IFAD (1993) adds that because the production did not meet expectations, the storage capacity of storerooms turned out to be far beyond the needs of small farm cooperatives. The investment was not productive, a situation that was due to the lack of consultation and information from the beginning.

Solving the problem of unemployment and small incomes was also at the heart of the GADP that tried to support micro-enterprises. However, because of insufficient financing, the micro-enterprises did not have a significant impact on job creation. A funding of 12,200,000 FRW for farm activities seemed to be too small to cover the needs of the agricultural sector and to promote Small and Medium Enterprises (SMEs) in Gikongoro (IFAD, 1993).

The provision of training for farmers was another issue that the project had to address. But there was a lack of interest on the part of the beneficiaries, especially among those who were viewed as advantaged above others in the region, and training costs were high (IFAD, 1993). The GADP continued to use traditional farming methods even though it had a modern training program and a department of research and development. Consultation with the key stakeholders like the Rwandan Agricultural Research Institute (ISAR), the Food and Agriculture Organization of the United Nations (FAO), and the Faculty of Agriculture, was not achieved (Bguyonb and GADP, 1993).

As far as evaluation is concerned, the GADP had a division of Follow-up and Evaluation, which made investigations into the implementation of the project. The findings of these investigations were synthesized in a document used for measuring performance indicators, which could have helped to identify deficiencies of the project and to take corrective measures (Bguyonb and GADP, 1993). But that document was only used by the managing director of the GADP and the accounting-management division (IFAD et al., 1993; Bguyonb and GADP, 1993). This should not have been the case because other stakeholders of the GADP, such as farmers, sponsors, government authorities and contractors also needed to share in that information in order to learn how effective and efficient the project was. In a meeting held in 2001, the GADP stakeholders, especially farmers, were informed that the project had ended. It closed its doors at a time when people had not expected it would. Even the termination of the project and the post-project

management had not been adequately planned. The project left people with no significant change in their livelihoods.

Looking at this situation, one realises that the GADP was not able to use the participatory development approach and create a continuous learning experience because there was little cooperation between the project and its stakeholders. In this regard, IFAD (1993) challenges the lack of a participatory approach by the GADP from the beginning of the project onwards and stresses that there was little cooperation between the GADP and IWACU (Training Centre and Cooperatives Research) in supporting cooperatives; between the GADP and United Nations volunteers in the renovation of tracks in the low-lying valley grounds; and the giving of technical assistance to farmers. Within the GADP itself, there was also a lack of cooperation between the Research and Development division and the Monitoring and Evaluation division when it came to selecting and setting priorities for the project.

As outlined above, the following questions arose from this problematic situation.

### **1.3 RESEARCH QUESTIONS**

The problem situation described above led the researcher to ask the following questions:

- How and to what degree did inadequate processes of management and evaluation contribute to the GADP failure?
- How did the GADP impact the lives of small farmers that were judged to be the main beneficiaries?
- How and to what degree did external environmental events prevent the GADP from achieving its objectives?
- How was the participatory development approach (Participatory Action Research) used by the GADP in the process of learning?
- What were the main causes that led the GADP to fail and how did they affect the project?
- What could be done and what lessons could be drawn from this experience for the benefit of ongoing and future projects operating in Rwanda?

The answers to these questions are found in the next chapters. These research questions are particularly important because they constitute the focus of a significant amount of research to which the investigator will refer in the course of this study (Soy, 1996).

## **1.4 RESEARCH OBJECTIVES**

The research objectives of the current study are the following:

- To assess how the GADP was implemented (the processes of the GADP management and evaluation)
- Assess the impacts of the GADP on small farmers that were judged to be the main beneficiaries;
- To assess how environmental events affected the achievement of the objectives of the GADP;
- To assess how the participatory development approach (Participatory Action Research) was applied by the GADP in the learning process during the phase of its implementation;
- To identify the main causes that made the project unsuccessful;
- To provide existing and future projects with relevant and useful information that might prevent potential failures.

## **1.5 DELIMITATION AND LIMITATIONS OF THE STUDY**

The GADP was implemented in the region of Gikongoro, one of the poorest provinces of Rwanda, characterized by the high density of its population, frequent droughts and famines. People live off agriculture but the arable land is infertile and the soil acidic. The GADP was welcomed as an opportunity to modernize agriculture and protect the environment against erosion which is one of the enemies of food security. Agricultural transformation in the region was expected to increase crop harvests, incomes, new jobs, and to improve health conditions. Although the project benefited from the important financial support of international organizations, it failed. It was that unexpected failure that drew the attention of the researcher to the GADP, as a case study for the current research. However, the researcher does not pretend to have covered all aspects of the project because of constraints of time, research funding and field research.

## **1.6 IMPORTANCE OF THE STUDY**

This study has generated significant results and it has created an opportunity to improve knowledge of project management and evaluation through the existing relevant literature and field research. The findings will also be useful for existing and future projects implemented in

Rwanda, because it could possibly help to prevent failures. The document will be available to users of the libraries of the University of KwaZulu-Natal and the NUR.

## **1.7 RESEARCH DESIGN AND METHODOLOGY**

The researcher has undertaken a qualitative research into a topic on which little information was available. To find answers to the research questions various methods for data collection and analysis were used. The application of multiple methods has helped the researcher to collect data on views of research participants with different perspectives (Jennifer, 2005) and to get a better understanding of the complexity of the investigated project (Wolcott: 1990). This section deals with methods of data collection and analysis that are appropriate for the current study.

### **1.7.1 Methods of evaluation**

#### **1.7.1.1 Steps of evaluation**

The success of an evaluation depends on the use of suitable mechanisms that have to be integrated in the project in its early stages. Some sequential steps are required for an effective evaluation (United Nations Centre for Human Settlements, 2001). They include:

- preparing an evaluation plan including reasons for undertaking the evaluation, purpose of the evaluation, the use of results, participants in the evaluation, type of evaluation which is most suitable;
- developing indicators, which indicators measure the project's progress or its activities aimed at achieving its objectives;
- structuring indicators that are indicators oriented toward different aspects of intervention, such as policy level relevance, project level performance, operational level effectiveness, efficiency, project impact;
- evaluation stages: these are mostly concerned with data collection, data analysis and assessment;
- lessons from evaluation: lessons of evaluation must be implemented to improve the project.

#### **1.7.1.2 Process of evaluation**

As the evaluation of the GADP concerns a completed project, the process of evaluation appropriate to and used in the current research was aimed at a summation of the GADP's implementation and its impact on the lives of the people living in the Gikongoro province.



## **1.7.2 Methods of data collection**

### **1.7.2.1 Systems thinking**

As this study is qualitative, the systems thinking approach seemed to be well placed for data collection and analysis. As Lane (1999:7) indicates, systems thinking looks at the interconnectedness between parts of a whole, instead of concentrating on its parts. It helps to deal with complex situations that include people and material aspects and focuses on ways in which they relate in a particular situation. Lane (1999:16) argues that understanding such situations can defeat human descriptive abilities because words alone either confuse or misrepresent the situation. For this reason, diagrams are often used as a characteristic aspect of the systemic approaches to the understanding of complex situations. Diagrams help to establish the relationships which exist between parts of the situation.

According to Lane (2000:70), the great advantage that diagrams have over words in the representation of systems is that they make interconnections visible. Diagrams come in many forms and have many uses. Trochim (2006) argues that diagrams in the forms of graphic or cartoons should be used as summarizing tools during the process of gathering data. This process should be successfully performed by a research team, interacting and sharing opinions and remaining inspired.

In the practice of systems thinking diagrams are useful because they help the researcher to think carefully about his field of research and, if necessary, revise his ideas on the subject under investigation. Diagrams also facilitate the sharing of information with others (Waring, 1996:33).

In the current research, the use of the systems thinking approach was useful in the constructing of Chapters Two to Four. It helped the researcher to identify elements that were interconnected within the GADP and their influence on the project and on the lives of its stakeholders, especially the farmers living in the Gikongoro province (Chapters Six to Eight). Those elements included infrastructure (roads, forests, and storerooms) and other resources (human and financial resources), the rearing of livestock, the production of food and cash crops, land development, bank loans, partnership between the GADP and its stakeholders, the GADP's internal environment (management and evaluation issues) and its external environment (economic, ecological, demographic and political aspects). Diagrams were used to clarify the relationships (causes and effects) between these elements and to show how people felt about the GADP

(Figure 7-1). Some examples of these relationships were given in Figure 2-5 (section 2.1.8), Figure 6-4 (section 6.4.3) and Figure 7-4 (section 7.3.5.4).

### **1.7.2.2 Case study**

According to Creswell (1994:12), a case study is a method by which the investigator explores a particular phenomenon that is delimited by time and activity. The activity can involve a social group, an institution, a process, event or program. During the period of research, the researcher collects detailed information by means of various methods. Soy (1996) found that research in a particular case study becomes successful when it is aimed at understanding a complex situation or when it comes to confirm information that was already gathered in preceding research. For this thesis, data were collected from various sources, namely, documentation review, electronic resources, direct observation, and interviews.

### **1.7.3 Data analysis methods**

Since the research is qualitative, the data analysis focused on thematic analysis. The thematic analysis method consists of “reducing accumulated data to a manageable size in order to facilitate the synthesis in analyzing data” (Babbie and Mouton, 2003:492). The systems thinking approach proved also useful for structuring and analyzing the problems faced by the GADP in the light of data collected using methods mentioned above. Themes from the field data were systematically identified and developed as the data analysis progressed. For this reason, there was no need to use specific software for data analysis. In the data interpretation, the views of participants in the case study and the research questions were referred to (Cooper and Schindler, 2003:87), and recommendations were made accordingly.

## **1.8 STUDY OUTCOMES**

This study has helped the researcher to gain more information and knowledge regarding the subject under investigation. It is hoped that the publication of the results of the study will be a valuable contribution towards building a solid foundation for existing and future projects leading to their success, so that they may help in solving many social and economic problems in the Rwandan community. Those problems are specifically related to unemployment, small incomes not enough to cover medical care, nutrition, education, shelter (home ownership), and communication needs for a large portion of the population.

## **1.9 STRUCTURE OF THE STUDY**

The thesis as a whole is structured as follows. Chapter One outlines the main points of the research design, notably the problem statement, objectives of the study, research questions, and methodology.

The focus of Chapter Two deals with the literature review explaining some key concepts of project management, project critical success factors and the causes of project failures related to management issues.

Chapter Three presents the failure of development projects. Aspects of success and failure are indicated in Local Economic Development (LEC) projects, agricultural projects and the external project management environment in developing countries, more specifically in Rwanda.

Chapter Four presents the concept of project evaluation, evaluation purposes, evaluation forms, evaluation approaches and some problems encountered in project evaluation.

Chapter Five details the research design. It clarifies the concept of research design and discusses qualitative approaches, qualitative methods, ethical considerations, data collection and analysis.

Chapter Six presents the case study of the GADP with its objectives and organizational structure. The organizational environment is at the centre of the chapter with the focus on problems faced by the project in relation to political, economic, climatic, ecological and demographic aspects.

Chapter Seven deals with the assessment of the GDAP management, whereby the key management processes throughout the phases of the GADP life cycle are stressed. These phases are the project initiation, its planning, and execution (implementation) and the closing down. Elements worthy of particular attention in these phases include project initiation, planning, stakeholder identification and partnership management, communication, training, time management, resource management, and participatory development approach.

Chapter Eight assesses the evaluation process in the GADP, together with the evaluation of effects and impact, and an overall assessment of the GADP using the criteria of coherence, relevance, effectiveness, efficiency, cost-effectiveness and impact.

Chapter Nine presents a summary of the work, a conclusion and recommendations.

## **CHAPTER TWO: PROJECT MANAGEMENT PRINCIPLES**

This chapter presents project-critical success factors (CSFs) and causes of project failures. In this regard, the project management environment in developing countries at large and in Rwanda in particular is considered along with some cases of successful and unsuccessful projects.

### **2.1 OVERVIEW OF PROJECT CRITICAL SUCCESS FACTORS**

#### **2.1.1 The notion of project**

According to Cleland and Gareis (1995), organizations explicitly and frequently use projects in order to deal with new challenges and opportunities. Frimpong (2003:7) distinguishes between project-driven organizations and non project-driven organizations. In project-driven organizations, activities mainly focus on projects through which all work is done. Every project has its own cost center. In non project-driven organizations, those activities that are usually ongoing repetitive efforts are performed by functional units or departments. The project goals are achieved using temporary resources whereas in project-driven organizations roles are defined for staff and are performed by means of stable resources.

Frimpong (2003:6) found that projects are time-phase efforts that have a shorter duration than programs. According to Keeling (2000:1) and Heerkens (2002:10), a project is “a temporary endeavor which is undertaken to create a unique product or service to respond to a need”. This means that a project has definite time limits (start and finish) and provides a new product or service, which is different from similar existing products or services. Heerkens (2002:10-11) estimates that a project is undertaken one time in the sense that, once implemented, it will not be executed again in exactly the same fashion within the same environment and by the same people. A project is an attempted solution of a specific problem, a solution that gives promises of a benefit, which may be financial, environmental, economic or social. The project is associated with risk, which implies a threat to the ability to make perfect plans and predict outcomes with confidence. A project consumes resources to execute a well-defined collection of specific tasks in a logical sequence. Burke (2001:2) viewed a project as an effort in which resources (people, money, materials) are well planned in a new way, aimed at carrying out specific work which is bounded by the constraints of time, scope, and cost in order to make a desirable change expressed in terms of qualitative and quantitative objectives.

It is in this context that the GADP was perceived as a project because it was planned for 7 years with a total budget of US\$ 31.2 million to improve food security and increase small-scale incomes in the farming sector.

There is a need for planning a project because the lack of a clear definition of a project's objectives is an obstacle to identifying and scheduling activities with objectivity. This brings about poor estimation of the resources required for the project's implementation. During the execution of the project, the lack of resources, unclear definition and poor scheduling of the project's activities result in delays in the accomplishment of those activities, in budget overruns and in the overall delay of the completion of the project. Furthermore, projects are implemented in changing environments, which are characterized by a high degree of uncertainty. When risks are not identified and integrated in the project planning and if alternative solutions are not considered or anticipated, it becomes very difficult to cope with unforeseen events, and in the worst case projects will fail.

### **2.1.2 The concept of project management**

Nowadays, project management is regarded as a path to successfully controlling the business of project-based organizations and as a way of planning a professional career (Lane and Wellings, 2005). Project management entails defining and planning the project and is specifically concerned with setting goals and objectives (Free Management Library, 1997) and with answering advanced questions such as what, how, where, when and who. This means specifying tasks, identifying resources and corresponding budgets and schedules (timelines) for the project completion (Free Management Library, 1997 and Knipe et al., 2002:14). Therefore, Heldman (2005:29) found that effective project management combines nine management areas:

- project integration;
- project scope which includes goals and objectives;
- project time which involves activity identification and schedule;
- project quality;
- project cost;
- project communication;
- project human resources;
- project procurement;
- project risk.

It is through the project integration that the other management areas are harmoniously joined in the processes of project planning, execution and control.

The concept of project management assumes that a project is planned and implemented in order to find a solution to a specific problem in a specific time, but with limited resources and in an unpredictable environment. That is why the umbrella of these management areas is very important for the project's sustainability. When well integrated in the project planning, these areas can predict the potential success of the project and they are a valuable input for the project's implementation. They are normally referred to throughout the project life cycle when it comes to evaluating the project, identifying performance and impact indicators and assessing the project's progress, impact, effectiveness and efficiency. These management areas are so interdependent that a problem relating to one element can influence the others and the project as a whole. For this reason, they have to be integrated in the processes of planning, execution and control.

Knipe et al. (2002:14) found that project management assesses the good use of plans, organization and resources to meet the project goals and objectives, and includes guidance, which means motivating people to excel. Burke (2001:3) and Keeling (2000:6) observe that, in order to make the project achieve its objectives, project management integrates everything that needs to be executed in the nine areas of project management as the project grows throughout the phases of its life cycle, from its conception to the phase of closing down.

For Heldman (2003:39-40), a successful project manager is one who is competent in various skills of general management such as communication, organizing, leadership, team building, staffing, planning, instructing, implementing, monitoring, coordinating and controlling. General management also includes various support disciplines such as dealing with legal contracts, computer systems, accounts and salaries, sales and marketing, and personnel and human resources. For Cagle (2005:10), managerial success is not a simple thing. It involves a long path and it requires knowledge combining education, training and experience. Success is determined also by the personality of a project manager and by his attitude towards the members of his team, his customers and his management duties. His performance is about how well things come together, how the project product is produced, how satisfied customer and management are. Performance is the factor critical for success, no matter how important other factors are, because

if performance does not produce the product according to the profit level as established by management and does not meet the customer's specifications, the project fails.

From these theories, it is clear that successful project management encompasses all activities required to produce a product or service that can meet the needs of stakeholders involving all stakeholders in the project from beginning to end. The theories assume that projects are planned and implemented in stable and predictable environments. But in reality developing environments are marked by uncertainty, instability and complexity. The lack of integration of these elements in the planning processes brings about poor planning, which complicates the project's implementation.

### **2.1.3 The concept of critical success factors regarding the project**

According to Aksom and Hadikusumo (2009), critical success factors (CSFs) are the factors that affect the success of projects and business-related activities. They concern those areas in which satisfactory results ensure success of the organization. Cooke-David (2002:185) views success factors as important ingredients of the management system which lead directly or indirectly to the success of a project or business.

Belassi and Tukel (1996) found that the determining of a project's success or failure may be ambiguous because people involved in projects tend to perceive them differently from outsiders. A project that the client considers as a success might be regarded as a failure by the top management, and vice versa. The parties involved in the project may evaluate it in widely differing ways.

As projects may have many stakeholders who have different needs, interests, expectations, roles and experience, it is not surprising if the project does not satisfactorily meet the needs of all stakeholders. Conflicts may arise and not all may be settled. The changing environment may give rise to new needs of stakeholders that the project is perhaps unable to meet because its resources are limited in terms of quantity and quality. That is why, depending on the nature of the project, the determination of critical success factors can help to assess the project's chances of becoming a success.

As Belassi and Tukel (1996) state, since 1950 the emphasis in project management has been on the problems of project scheduling, with the assumption that improving the techniques used in

project scheduling would bring about better management and therefore the completion of successful projects. However, other factors co-determine the project's success or failure.

From previous literature, Belassi and Tukel (1996) identified a series of project CSFs as indicated in Table 2-1.

**Table 2-1: “Seven” list of critical success factors**

Sayles and Chandler (19971)	Martin (1976)	Baker, Murphy and Fisher (1983)	Clerand and King (1983)	Locke (1984)	Morris and Hough (1987)	Pinto and Slevin (1989)
	Definition of goals	Clear goals			Objectives of the project	
Scheduling	Planning and review	Techniques of planning, control	Project scheduling	Put in place control mechanisms (schedules)	Urgency schedule and duration	
Responsibilities and control systems	Organization and delegation of authority Selection of project team	Task (vs. social orientation)	Organization and manpower	Appointment of capable project manager		Recruitment of personnel Technical tasks
Monitoring and feedback Continuous involvement in the project	Mechanisms of information control		Review of project	Meetings of project progress		Monitoring, feedback
Competence of project manager	Support from general management Organizational philosophy Allocation of sufficient resources	Adequate capability of project team Availability of project manager Non existence of bureaucracy Project team and goal commitment Minimum start-up difficulties Precise estimates of initial cost Sufficient funds to completion	Adequate facility support Support from top management Adequate financial support Information and channels of communication training and executive development Project summary Acquisition Intelligence of market (know the client) Logistic conditions Operational concept	Set up procedures and communications Project commitments known Project authority from the top	legal problem, Financial contracts Innovation, Technical uncertainty Implementation problems Involvement of the Community Political issues	Features of the leader of project team Communication requirement Politics and power Urgency Events of the environment Acceptance of the client Troubling, shooting Support from top management Consultation Client

Source: Adapted from Belassi and Tukel (1996).



The table indicates that in the 1970's and 1980's, the project CSFs were basically found in the following areas: planning (definition of objectives and goals, task schedule, resource allocation), implementation (personnel recruitment, information and communication, progress meetings, conflict resolution, training, management support), control (monitoring) and leadership (authority, responsibilities, delegation and power and managerial competency, team building and capacity). Relations with stakeholders were limited to the client. The environment was given little weight and was mostly limited to politics. Theories assumed that the project environment was certain and predictable. This meant that, once plans were well established, outputs and outcomes of the project were expected to be achieved as planned. But this was not the case because projects are implemented in turbulent and complex environments. Thus, the lack of a realistic assessment of the project environment resulted in inadequate planning because the objectives were not clearly defined and activities, resources and costs not realistically estimated. This problem adversely affected the project implementation because of delays, lack or waste of resources and potential conflicts among the stakeholders. For this reason, the uncertainty and complexity of the project environment needs to be included among the project's critical success factors.

Aboubaki and Rivard (2006) regard risk assessment and monitoring, contract management, managerial skills and technology assessment as project critical success factors. For Simpson (1999), critical success factors include leadership involvement and planning of the project implementation. According to Arain (2007), the most important critical success factors in the construction industry included establishment of project goals and client criteria, clarity with respect to work scope, characteristics of project manager, client's own organization, project team work, team building, authority and influence of project manager and estimated cost. Fox and Waldt (2008:29) and Meyer-Stamer (2005) emphasize that the use of the systems thinking approach is critical to a project's success because it helps to establish relationships between the stakeholders and the environment. Newell and Grashina (2004:11) and Petkov, Petkova and Nepal (2007) base the success of a project on the stakeholder analysis. The Organization for Economic Cooperation and Development (2001:41) states that efficient production, protection and conservation of natural resources, and positive outcomes in the social, economic and environmental areas are critical to agricultural development projects. Kendrick (2006:10) indicates that a project's life cycle is a key critical factor to its success.

From the literature, it appears that it is very important to determine critical success factors because, once they are identified, interpreted properly and applied to the real context of the project, they can lead to its success. In the reverse case, they can bring about project failure. These different CSFs are synthesized in the following areas: environment analysis, stakeholder analysis, project life cycle (integrating planning, execution and control activities), leadership, risk management and systems thinking. They are developed in the following sections.

#### **2.1.4 The project management environment, stakeholder analysis and partnership**

The project environment can directly influence the project and the way it should be managed (Burke, 2001:5). In addition to the physical environment, a project manager has to be familiar with other environmental aspects (organizational, social and cultural) relevant to the project (Wideman, 1990). Environmental factors exert a significant impact on the selection of strategies for implementing an enterprise's vision and mission (Bolles and Hubbard, 2007:211).

According to Atesmen (2008:2-7), the environment can be broken down into technological, traditional, economic, political and legal areas. When technological factors are broken down further into factors such as applicable technical specifications, standards, infrastructure, and training, the risk of confusion and potential conflict between the project and its subcontractors about product quality is reduced or eliminated. Traditional aspects such as working hours, holidays, how to address one another, business dinners, attitude towards time, work and management styles are critical factors that, if handled wisely, can lead to a project's success.

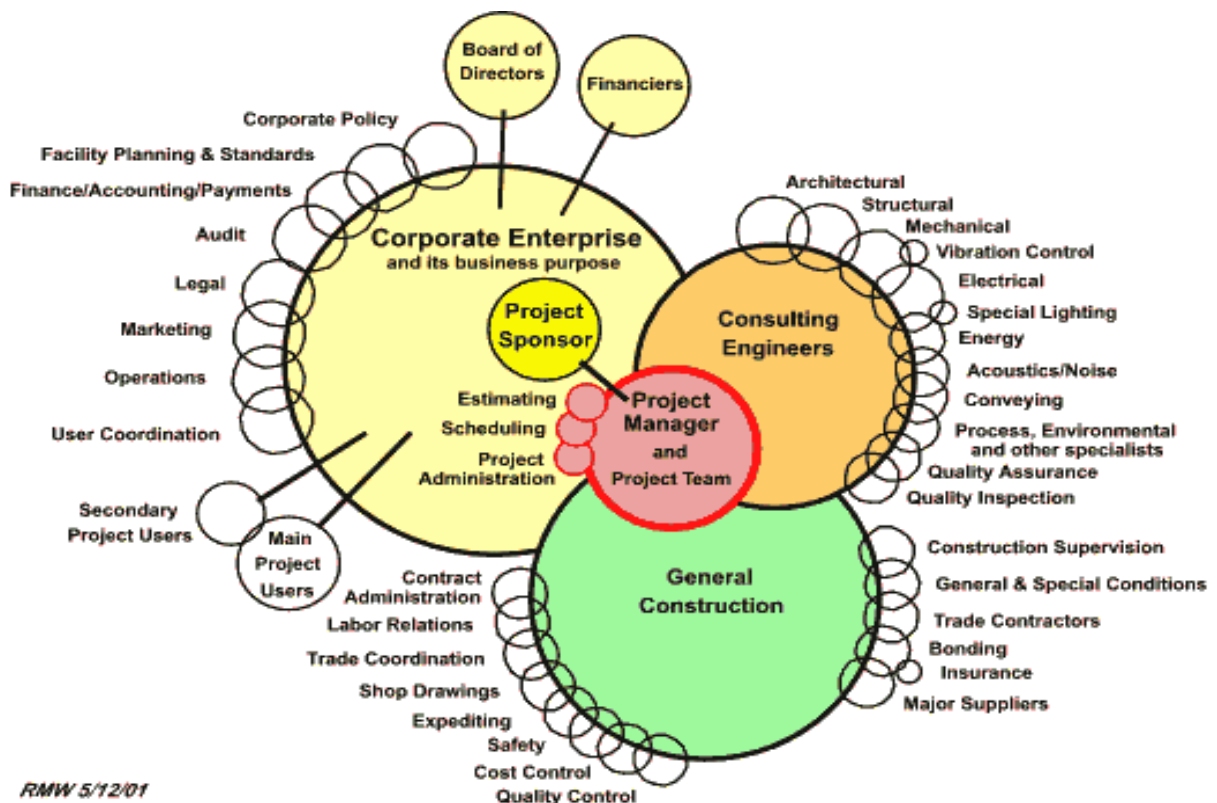
The project manager does not necessarily have to change habits but to use them correctly and integrate them in the project planning because they are a part of project costs. Economic factors such as transport and accommodation allowances are a part of employee salaries and included in the project costs. They can add up considerably depending on the size of the employee's family and of the house in which they live, but they can also be project critical success factors as they may be a source of motivation and productivity in the workplace. Political factors that include embargos, historical animosity between nations, worldwide political alliances and tensions can handicap the project's progress. Legal factors such as infringement, non-performance issues and project delays hinder its success and as a result relationships between the project, customers and subcontractors suffer. That is why the project manager has to be aware of all the key points, technical specifications, changed orders that affect the project agreement, deliverables and

deliverable requirements. In the case of dispute, the project and customers or other stakeholders refer to the agreement document in order to settle the conflict.

As projects are planned and implemented in an environment which is unstable, it is important to obtain information about that environment so that the opportunities that it offers and the threats that it poses can be included in the project strategic planning. The lack of thorough environment analysis leads to poor planning and complicates the implementation of the project, in the worst case causing it to fail.

A true understanding of the environment requires the identification of the project's stakeholders (Figure 2-1) and of their capacity to effect a desirable change in terms of positive outcomes. This involves influencing the environment positively which may significantly reduce associated risks and failure (Wideman, 1990).

**Figure 2-1: Corporate environment of project management**



Source: Wideman (1990).

From Figure 2-1, Wideman (1990) shows that all operational activities are directed. They include design, planning, implementation and commissioning. Direct project support activities are required, notably forecasting, estimating, scheduling, project accounting, procurement, and progress reports. But for larger projects, the project manager needs other more indirect and specialized services such as services dealing with payrolls, personnel, property acquisition, financial accounting, government and public relations, and legal law frameworks. The effective provision of these services demands that all stakeholders be well known and interact in a collaborative atmosphere. As Newell and Grashina (2004:11) indicate, stakeholder analysis is very important in project management because it determines the expectations and the needs of project stakeholders, whether the project enjoys their active involvement or affects their interests. Thus, Keeling (2000:184) states that it is imperative to clearly identify stakeholders and manage their expectations.

But identifying project stakeholders, their needs, interests and expectations in itself is not enough because over time these elements are modified, for example in response to environmental change and project plans need to be revised, contracts and collaborative relationships reviewed and readjusted to the real situation on the ground. This is important to avoid conflicts or settle them in time.

Sometimes, internal and external project stakeholders come into conflict because they are from different cultural, educational and economic backgrounds. According to Badiru et al. (2008:63-66), conflicts arising in projects are generally related to schedule, cost, performance, management, technical issues, priorities, resources, power and personalities. They are summarized in Table 2-2.

**Table 2-2: Sources of project conflicts**

Conflict areas	Type of conflicts
Schedule	Improper timing or sequencing of project tasks develops scheduling conflict.
Cost	In some cases, project clients do not accept the project cost. A lack of cost control leads to project conflict during its implementation. Poor approaches of budget allocation and the inadequate financial feasibility are the source of cost conflicts in project later on.
Performance	Poor definition of performance standards leads each person to assess his performance according to his own judgment and is the source of project conflicts.
Management	The lack of mutual appreciation between the views of management and team and the lack of two-way interaction causes conflicts, which, in some cases, culminate in strikes and industrial actions. This situation is detrimental to project objectives.
Technical issues	Inadequate comprehensive technical feasibility is the source of technical conflicts.
Priorities	If project mission and objectives are poorly defined and applied uniformly across the project, lack of direction in the project definition leads each project member to define his own goals which may conflict with the project's intended goals. Assigning of too many responsibilities without significant guidelines is also a source of priority conflicts.
Resources	Competition for resources such as personnel, hardware, software and tools is a problem in project management and leads to disruptive conflicts among project members.
Power and personality	The assertion of personality and power in which each person seeks to widen his own scope and influence may affect the project progress adversely..

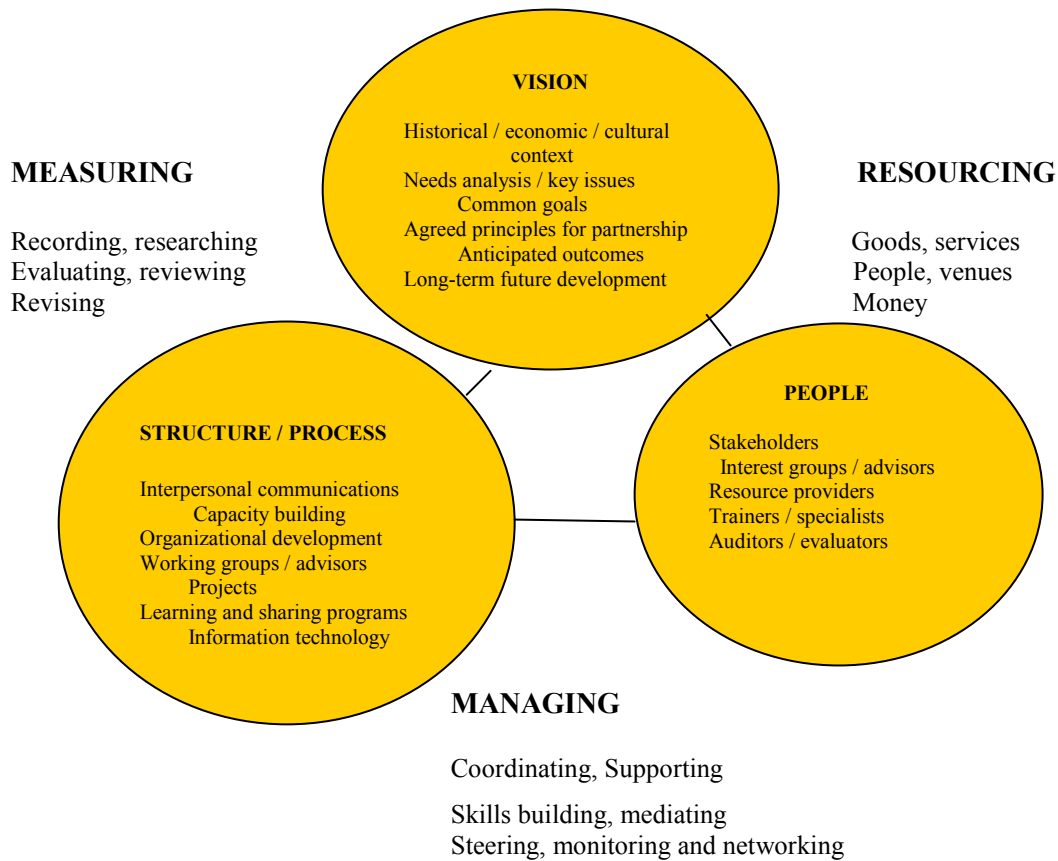
Source: Adapted from Badiru, Badiru, and Badiru (2008:63-66).

This table shows that sources of conflict are closely associated with the project planning although environmental factors may also lead to conflict. Thus, thorough planning, which involves all the project stakeholders can be an important factor in the avoidance or the minimizing of disagreements.

Keeling (2000: 184) found that adequate formal and informal communication can be used to solve stakeholders' conflicting interests, expectations and needs. Badiru et al. (2008:63) strongly support that communication with the use of adequate communication channels, cooperation through partnerships and coordination with an adequate organizational structure, can help to effectively deal with different conflicting situations. For this reason, The Project Management Institute (2000) found it necessary to clearly identify project stakeholders and their influence on the project. Stakeholders' influence may be positive or negative. In the first case they generally are the beneficiaries of a project's successful outcome. Among stakeholders with a negative attitude are those whose interests are not being met by the project. Therefore they focus on its negative points. That is why Burke (2001:40) highlights the importance of addressing those who oppose the project and discussing their fears, because it is these stakeholders that could derail a project particularly if they have power. To ensure a project's success, stakeholders' expectations and needs should be considered, well balanced and managed. In this way managing partnership

relations become a CSF. In this context, Tennyson (1998:68) has established a model (Figure 2-2) which can help to deal with relations among project stakeholders.

**Figure 2-2: Ingredients for sustainable partnership action**



Source: Tennyson (1998:68).

The model suggests the kind of project planning in which a vision is created on the basis of identification of needs, definition of objectives, identification of stakeholders (resource providers, trainers, evaluators, etc) and their roles, and identification of resources (people, services and products). Subsequently, the planning is implemented. All stakeholders do what they have promised in their partnership contracts, signed in the phase of project planning. The tasks performed by the project are measured in order to check whether they are leading towards the achievement of the objectives (plans) and meet the requirements of the stakeholders. Readjustments of agreements and revisions (re-planning and implementation) processes can take place as necessary until the needs of stakeholders are met and project objectives achieved. The model helps to avoid conflicts or to deal with them as they arise so that they can be settled in

good time. However, in developing environments, the applicability of the model can be interfered with by problems of corruption, a low level of education of some stakeholders, political motives, lack of resources and inadequate technology.

According to Badiru et al. (2008:52), effective partnership involves having a project team and stakeholders who operate as partners in pursuing project goals. In partnership relations, stakeholders are aware of being together involved in the project and they have a positive attitude, which brings about their mutual acceptance and appreciation. The result of such relations is cost reduction, improved efficiency and better effectiveness, resource sharing, increased potential for innovation and improvement of quality of products and services.

The main point of this subsection is that the analysis of the project environment provides information on the environmental factors which can influence the project negatively or positively. The information helps to identify various project stakeholders (role players), their roles, needs, interests, expectations as well as potential conflicts. The information assists to establish partnership relationships that are appropriate to minimizing negative forces such as risks of conflicts and project failure, and that may strengthen positive forces such as knowledge, skills, experience, collaborative culture, etc. A favourable environment should be created where stakeholders are encouraged to make their knowledge, skills and experience available, which may contribute to the project's success. However, a number of project planners and implementers assume that their projects function in a stable and predictable environment and expect success. This is not the case. Therefore, environmental analysis and management of stakeholder partnership in a project should be a continuing activity, carried out throughout the entire project life cycle to reassess the needs and expectations of project stakeholders and to see how to meet these satisfactorily. This is because the changing environment gives rise to new needs, expectations and interests on the part of the stakeholders and to potential conflict situations among them. The information provided in this subsection can help to answer the research question of the current study (GADP) concerning external environmental factors.

### 2.1.5 The concept of a project life cycle

As Keeling (2000:10) states, from its conception to the completion point, every project undergoes a series of phases (life cycle) and each phase has its own characteristics and needs. Burke (2001:3) and Heldman (2005:23-24) adds that project-based companies usually break down their projects into four phases (project life cycle) as indicated in Table 2-3.

**Table 2-3: Project life cycle**

PHASE 1	PHASE 2	PHASE 3	PHASE 4
<b>Concept</b> Gather data: <ul style="list-style-type: none"> <li>Identify needs</li> <li>Establish:               <ul style="list-style-type: none"> <li>Goals, objectives</li> <li>Feasibility, basic economics</li> <li>Risk level</li> <li>Stakeholders</li> <li>Potential team</li> <li>Strategy</li> </ul> </li> <li>Estimate resources</li> <li>Establish alternatives</li> <li>Present proposal</li> <li>Get consent for next phase</li> </ul>	<b>Development</b> Select key team members: <ul style="list-style-type: none"> <li>Conduct studies</li> <li>Develop baseline of scope:               <ul style="list-style-type: none"> <li>Quality standards</li> <li>End product (s)</li> <li>Activities</li> <li>Resources</li> </ul> </li> <li>Establish               <ul style="list-style-type: none"> <li>WBS</li> <li>Master plan</li> <li>Budget costs and cash flow</li> <li>Procedures and policies</li> </ul> </li> <li>Assess risks</li> <li>Validate justification</li> <li>Present project brief</li> <li>Get consent to proceed</li> </ul>	<b>Implementation</b> Set up: <ul style="list-style-type: none"> <li>communication</li> <li>Organization</li> <li>Stimulate team</li> <li>Develop technical requirements</li> <li>Establish:               <ul style="list-style-type: none"> <li>Packages of work</li> <li>Schedule development</li> <li>Control systems of information</li> </ul> </li> <li>Procure goods and services</li> <li>Execute packages of work</li> <li>Direct / forecast / monitor / control:               <ul style="list-style-type: none"> <li>Scope</li> <li>Time</li> <li>Quality</li> <li>Cost</li> </ul> </li> <li>Resolve potential problems</li> </ul>	<b>Termination</b> Finalize products: <ul style="list-style-type: none"> <li>Evaluate project</li> <li>Review and accept</li> <li>Document results</li> <li>Transfer product responsibility</li> <li>Reassign project team</li> <li>Release/redirect resources</li> </ul>

Source: Burke (2001:28).

The project life cycle offers better control of management because it shows various activities, which need to be done for each phase, from the beginning to the end of the project. The project phases include concept (initiation), development (planning), implementation (execution) and termination (closeout).

As the table indicates, the conceptual phase is characterized by an awareness of the need or desire for some kind of improvement (discovery of an opportunity for a facility, service or product), or a major development, the identification of external factors and main stakeholders, and the anticipation of the project's context and impacts (Clements and Gido, 2006:6 and Klastorin, 2004:24). Potential project benefits, costs, feasibility and scope are considered along with the identification of problem areas and alternative ways of dealing with difficulties



(Keeling, 2000:13). Project objectives, deliverables, deadline and priorities are established. Risks and new technologies required are evaluated (Kendrick, 2006:13; Lester, 2007:37; Fox and Waldt, 2008:37).

In the phase of planning the project, appropriate objectives, policies, programs and procedures are established because poor plans result in frequent changes of scope and the related reallocation of resources, which is generally costly and delays the project delivery. Proper planning provides the basis for monitoring, evaluation and control. It anticipates external factors that can have negative impact on the project (Frimpong, 2003:21). In the phase of the project implementation, progress reviews are conducted and information on the project is reported to the decision-makers so that they can take corrective action leading to necessary improvements (Heerkens, 2002:16). Work efficiency is harmonized with the quality of plans, and with the effectiveness of technology, administration, leadership and control (Keeling, 2000:14; Fox and Waldt (2007:9). In the closing phase, the overall efforts made in the context of the project as well as their effects are evaluated and the findings constitute a valuable input into the conceptual phase of new projects and remaining resources of the closed-down project may be reallocated for the survival of other organizations. The project completion, the handing over of duties and reallocation of resources are prepared and included in the final report (Atesmen, 2008:138; Heerkens, 2002:12).

A better understanding of the project's life cycle is essential for successful project management because important events take place in a logical sequence for which planning has to be suitable and well managed. Keeling (2000:11-12) indicates that familiarity with the project life cycle helps the project manager to understand the needs in each phase, to predict changes. He will foresee an increase of pressure when costs accumulate and resources diminish and knows when priority reappraisals, revisions and special reviews are due. The life cycle provides reference points for the project team in its assessment of progress, and of the work remaining to be done. The project life cycle is also an instrument for the measuring of quality because for each phase specific quality expectations have been specified and these provide points of reference for a confirmation or criticism of a product's quality.

The project life cycle is an important tool in the design and planning of successful projects. Some project failures have their origin not in the implementation phase but in the earliest planning stages. According to Kendrick (2006:10-11), formal life cycles are usually established

to help project managers to coordinate their projects, determine progress and facilitate project visibility and communications. Life cycle requirements also constitute a powerful tool for managing potential conflicts that arise among various functional groups (dealing with finance, sales, facilities, manufacturing, engineering, quality, testing, support, documentation, training and customer service) because of contradictory interests. Activities planned as part of a project are easier to control because people adopt a corporate culture based on cooperation, which minimizes sources of conflict.

The effectiveness of the project life cycle depends on the involvement of stakeholders in the project. If the degree of their involvement and participation has been low from the beginning, the project will be poorly planned and implemented. During the implementation, the project will face wastage and shortage of resources, inadequate coordination of project activities, poor quality of product or service, budget overruns, delays in delivering materials and executing activities, and conflicts. Furthermore, as the project is implemented in changing environments, the stakeholders' needs and the environment have to be continually reassessed and adapted to the real situation on the ground. A good understanding of the project life cycle helps to deal with risks associated with the project during its lifetime. The project life cycle was particularly important in the case of the GADP which failed throughout its lifetime, from the initiation phase to its termination as is demonstrated in Chapters Five to Seven. The project life cycle was also of assistance in finding answers to research questions related to environmental factors and to inadequate processes of management and evaluation.

#### **2.1.6 Project risk management**

Keeling (2000:39) and Heerkens (2002:142) found that risk management is a continuous process. It starts with a feasibility study in which potential risks are identified, classified and assessed, and terminates with the project's closing down. For Burke (2001:230), project risk management ought to make full use of positive events and reduce the consequences of undesirable events. Nokes et al. (2003:124), and Newell and Grashina (2004:194-199) argued that project risk management tries to cope with risks through strategies of acceptance (doing nothing), avoidance (risk elimination), mitigation (reduce the negative effects of a problem), transfer (risk is shared with third parties through insurance and partnership), prevention (reduce the probability of risk occurrence), contingency planning (specific actions taken to cope with a potential problem when it occurs), and in the worst possible case scenario, abandonment of the project.

Risk management is an important contributing factor to the project's success because it creates awareness of potential problems, including a shortage of resources (people, materials, funding, etc), poor quality of product and customer service, delays of project reporting, environmental changes such as inflation and exchange rate fluctuations, political instability, shifts of customers' needs and attitudes towards the project product or service. Technological advances and legal constraints may also be envisaged. When the affective assessment of these risks is integrated into the project planning, it helps to set achievable objectives, to identify and schedule realistic activities, to objectively estimate resources, to avoid or minimize the problems of paucity of resources, unnecessary costs, delays and conflicts and to anticipate alternative solutions for potential problems. However, some project planners and implementers seem to ignore the need for risk management and cause projects to fail.

Moreover, risk management should be a continuing activity starting in the conceptualization phase and lasting to the project's termination. The project's environment is constantly posing new challenges and has to be reassessed so that changes and new needs can be integrated into the planning - and implementation processes. In this regard, collaborative relationships among project stakeholders are taken into serious consideration because risk analysis is not the task of a single person or a small group of people but of a large and multidisciplinary team with diversified information, experience, skills, knowledge and maturity. Strong leadership creates such a cooperative whole. Risk management helps to answer the research questions related to environmental factors and to inadequate processes of management and evaluation.

### **2.1.7 Project leadership**

Wideman (1995) and Ralph and Kliem (2004:19) assert that project leadership implies the aptitude to inspire others to perform well. For Kerzner (2003:216), project leadership is a style of behaviour that channels both organizational requirements and individual interests into the pursuing of a specific objective. Theories have been developed regarding several leadership styles that project leaders can adopt to successfully run their projects. Leadership styles have been considered as a continuum from autocratic to democratic (Table 2-4).

**Table 2-4: Styles of leadership**

< Not participative		Highly participative >			
Autocratic based on isolated decision	Autocratic based on informed decision	Consultative autocratic based on discussion with individuals	Consultative autocratic based on discussion with team	Democratic	Laissez-faire
The leader alone solves the problem or makes the decision using information that he has and does not communicate with team members. The leader has all the power of problem-solving and decision.	The leader proposes his decision to the team members, gets necessary information (feedback) from them and then decides alone on the solution to the problem.	The project leader shares the problem and decision with the members of team individually, gathering their ideas and suggestions, and makes the decision by himself. The leader has final decision.	The project leader shares the problem with the members of team as a group and decides alone.	The project leader shares the problem with the members of team treated as equals and they work together as a group to make a joint decision.	The project leader leaves the problem to the team members and let them make decision. The leader recognizes to the team full delegation of decision

Source: based on Burke (2001: 277-278), Syque (2002) and Ralph and Kliem (2004:13).

The table provides a range of leadership styles. Kerzner (2003:219) found that leadership is flexible and active rather than rigid and stagnant and moves from an autocratic style, which is not participative to a participative and democratic style. According to Syque (2002), good leadership is strongly participative by means of team building, which creates an environment favourable for joint decision-making. The leadership will delegate the entire process of decision-making to the team members who are regarded as equals. For Wideman (1995), this form of participation requires multiple skills on the part of the leadership as indicated in Figure 2-3.

**Figure 2-3: Major skills of project leadership**



Source: Wideman (1995).

Heerkens (2002:18-19) and Cagle (2005:31) argue that a project leader needs to cooperate closely with his employees if the project is to be successful. He performs his job in an environment characterized by constant uncertainty and has to coordinate the efforts of new participants with a range of different skills, work habits, biases, backgrounds, ethics and values. In order to win their cooperation he will have to rely more on influence and persuasion than on

formal authority. As Kendrick (2006:4-5) indicates, people work with enthusiasm on activities that appeal to them. Therefore, it is through a relationship based on effective communication, trust and mutual respect that a project leader can truly gain cooperation. Frimpong (2003:213) and Heerkens (2002:19) strongly support that getting the desired results demands that the project leader builds good team relationships with his employees and that he motivates and empowers them in the processes of decision-making and problem-solving through delegation of authority and responsibility.

In Burke's view (2001:277), managers select appropriate leadership styles depending on the pressure prevalent at a certain time, on stakeholders they are working with, and the type of decisions required. Besides general management skills, managers of organizations have to be equipped with leadership skills in order to make the organizations more effective and efficient. A suitable leadership style leads to a higher morale and productivity on the part of the employee. According to Smith and Cronjé (2002:217), a suitable leadership style helps managers to adapt a project's activities to the rapidly and constantly changing global environment, and to make necessary changes which may be driven by technological, economic, social, political and ecological forces.

These theories regarding leadership styles and the qualities of good leaders sound nice, but their applicability in practice is fraught with difficulties. There is no single style of leadership which can be universally and uniformly applied to all projects. In some cases, an autocratic style can be adopted when project leaders have to take decisions on topics of which other stakeholders have no knowledge or understanding or when urgent decisions have to be made without time to consult other participants. A democratic style, which involves participation of stakeholders, is suitable when all are willing to be involved, understand the project and its individual objectives, and have knowledge of the processes of decision-making or problem-solving. A *laissez-faire* leadership may not be suitable for leaders who don't effectively control and coordinate the project activities. For this reason, a suitable leadership is the one that can adapt to the situation of the moment and meet the project's and stakeholders' needs. This is so especially, because stakeholders' needs, interests and expectations change in response to environmental changes. The adaptable leadership style should involve effective communication, cooperation, mutual trust and respect, participation and empowerment of the stakeholders. It will increase the motivation of stakeholders, their involvement and commitment, and therefore have a positive impact on the project in terms of increased productivity and improved quality of outputs, the

resolution of conflict, as well as reduction of waste of resources, costs and unnecessary delays. Such a leadership style would have been suitable for the GADP, which aimed to be participative in its implementation and to involve all its stakeholders in its developmental approaches, but which never realized these aims.

Developing countries do not always address unethical issues such as corruption, non-transparency in decision-making and problem-solving, and lack of information dissemination. Instead some leaders try to keep information to themselves so as to escape from being made accountable for their actions. It is in such circumstances that the command-and-control style, similar to autocratic leadership, is adopted and applied to all situations without flexibility and adaptability. In some instances, project leadership is handicapped by governmental interference, which limits the autonomy of project leaders in performing their job and making decisions. In other cases, project leaders are not multi-skilled in areas of project management. Hence they can't make reasonable decisions because they lack knowledge and understanding of matters which play a role in decision-making. Cultural issues, political instability, and the lack of resources also pose obstacles to an effective leadership. Furthermore, it is very hard for organization managers to cope with environmental forces because most of them do not adopt the type of organizational leadership that integrates a systems thinking approach into its management systems.

### **2.1.8 Systems thinking**

Pegasus Communications (2000) defines a system as a group of interrelated, interdependent and interacting components that are parts of a unified and complex whole entirety. Lane (2000) found that project managers are often tempted to perceive projects as successful 'hard' objectives concerning, for example, cost, time and quality. Project managers often use a scientific approach that assumes relative certainty of planning outcomes and capacity to exercise control in a predictable environment. Yeo (1993) and Yeo (1995) discovered that the key feature of this perspective is that the team members of a project converge towards the predetermined project goals by completing the project in time within the constraints of technical specifications and budget. This approach is a useful tool for planning and control and ensures that all functional infrastructures such as airports, road network, seaports, telecommunications systems, and water, gas and electricity utilities are well designed, constructed, located and managed.

However, Yeo (2002) argues that very often, project managers are thought of as failing because they do not pay attention to soft criteria. A full acceptance of product or service goes beyond hard aspects and extends into soft criteria. Yeo (1995), Kirk (1995) and Midgley (2000) found that constructed systems are centred on human activity with the ultimate purpose of serving human needs. Project success is judged by the extent to which these human needs are satisfied. For this reason, a hard systems approach seems to be inadequate as it doesn't cover those human activities that are a characteristic of soft ill-structured problem situations.

Soft aspects such as safety, community perception, legal acceptability, environmental impacts, social and political impacts, communications, collaboration among stakeholders of organizations, value management, cultural systems and quality of human resources have been identified as fundamental factors that have a significant impact on the success of a project (Jaafari, 2001; Andersen, Dyhaug, and Jessen, 2002; Yeo, 1995; Petkov, Petkova and Nepal, 2007). Crawford and Pollack (2004) state that the identification of hard and soft elements of projects and the response to these different elements can influence the success of projects. This is because analysis of hard and soft criteria provides managers with a tool to select suitable management methods, which in turn become associated with the project's success. Yeo (1995) indicates that in changing complex environments, capable of contraction, growth or decay, the systems thinking approach can help to rejuvenate organizations and projects and to ensure their sustainability because it offers a way of learning and an opportunity to readjust and adapt plans to the real situation. When the permeability of an environment is judged to be high, it is vital to include a wide range of stakeholders in order to gain insight from various perspectives related to the situation. Lee-Kelley (2002) views the project's permeability as the extent to which project goals, processes and outcomes can be affected by external influences which are beyond the project control.

In the same way, Meyer-Stamer (2005) argues that key success factors of business development include both hard and soft factors and that the use of a systemic approach supposes interaction and close collaboration between public and private stakeholders working in local, regional, national and international contexts. According to Chapman (2004:65-78), Midgley (2000) and Yeo (1991), systems thinking provides the direction that leads towards an improvement of a particular situation while accepting diversity, multiple perspectives, learning processes and change as valuable contributions to that improvement. It does not consider failure as a big problem because in a culture of learning failures are not regarded as occasions for blaming

people, but as opportunities for them to learn. Yeo (1995) and Yeo and Tiong (2000) maintain that although hard and soft issues require different styles of management, these should not be perceived as mutually exclusive, but can be used in a complementary way because hard and soft issues are interconnected within organizations. Fox and Waldt (2008:29) argue that sustainable projects are those that are planned and managed on a basis of continuity and from a systemic perspective as presented in Table 2-5.

**Table 2-5: Systemic elements in a project context**

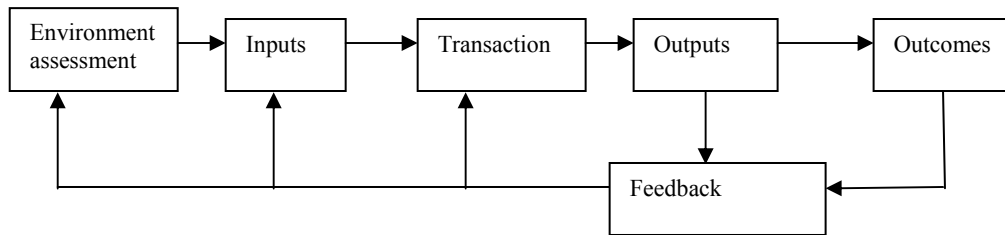
Systems element	Elements to consider
Macro context	Assess how the aspects of the social, cultural, economical, political, technological and legal environments impact on the project and how risks can be eliminated or minimized.
Input	Define the project and identify resources needed to produce deliverables (human, financial, material, infrastructures, etc).
Transaction (process)	Identify the activities and tasks that require to be accomplished to produce deliverables, determine systems, processes and policies that should be used and how performance and quality issues should be managed.
Output	Determine how the end of the product or service will be delivered and assess how efficient, effective and economic it is.
Feedback	Assess how the recipient of the project deliverables perceived the end product. If negative, measures are taken not to avoid the same mistakes in the future.
Outcomes	Determine the long-term positive by-product of the project deliverables and the way that the project would benefit the organization or the society

Source: Fox and Waldt (2008:29).

The table indicates that a successful project analyzes environmental factors (soft and hard) that can positively or negatively influence it so that risks may be assessed and action taken to avoid their occurrence or reduce their intensity. The environmental analysis provides information that can be useful to identify resources needed to accomplish the project's activities, achieve its objectives and deliver an affordable product or service, which is sensitive to stakeholders' needs. The table indicates that the satisfaction of the product or service user is evaluated. The result of the evaluation shows if the projected outcomes have been met. If not, necessary corrective actions can be taken to improve the quality or service so that it fulfils the needs of the recipient, and those of the organization or society at large. The process of learning proceeds on a continual basis and is summarized in Figure 2-4.



**Figure 2-4: A systemic model of viewing a project**



Source: Adapted from Fox and Waldt (2008:29).

However, as Chapman (2004:56-58) indicates, in most developing countries, scientific management continues to be used in many organizations, both in the public and the private sector, and managers are evaluated only on the basis of quantitative measurements of performance and targets with little or no particular attention for the fact that organizations which are most effective in changing environments are those regarded as complex adaptive systems. These systems acknowledge non-linearity and unpredictable environments. They function on the basis of relationships and continuous revision. This means that their surrounding environments are continually assessed and the information provided by the assessment is used to review objectives, revise plans regarding resources, quality, cost, time (activity schedule) and procurement, and to readjust the processes of implementation in response to feedback. For this reason, the specification of target measures of performance often results in sub-optimization of resources. In the short term, this approach should work when the focus is on the improvement of performance in terms of the activity schedule and budget, reduction of costs, increase of products and sales, increase of market share, and improvement of quality. But the approach may undermine other aspects of the organization that are important for its overall long-term effectiveness. These aspects may include research, innovation, risk analysis and partnership.

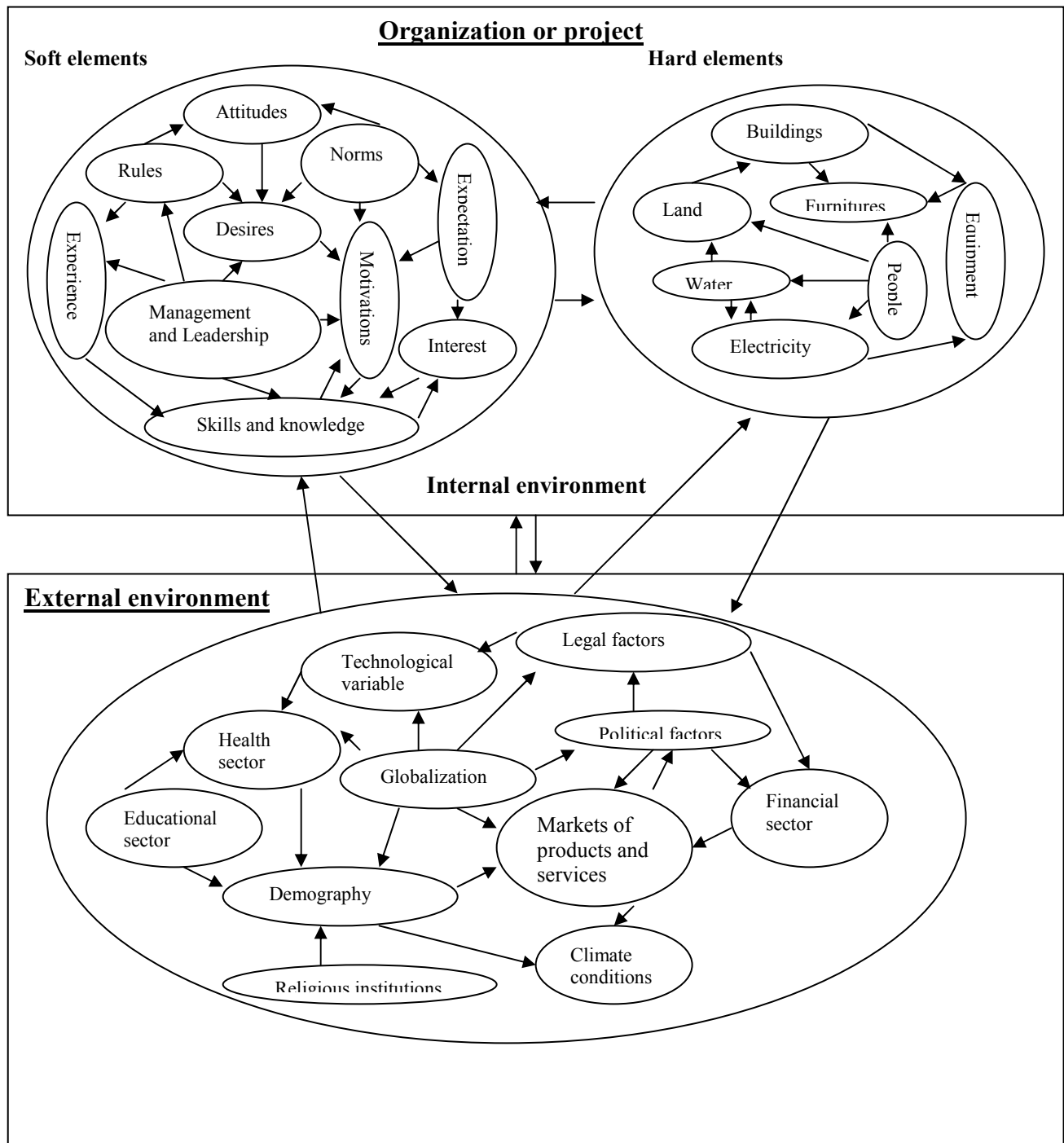
Chapman (2004:65-78) holds that the adoption of scientific management makes people forget that, for human activity systems to be effective, they have to move from mechanical or linear systems to complex adaptive systems that consider complexity, uncertainty and ambiguity in all management processes. Hence, the systems thinking approach overcomes the challenges of the mechanical systems, or the command-and-control style, where managers or policy-makers are disappointed when their quantitative targets are not met because they fear being blamed for failing. Alderman et al. (2005) argue that this ought not to be the case, as during the implementation of any decision, unpredictable and unintended consequences may arise as a

result of increasing structural complexity. The structural complexity comes from the fact that many of the elements which constitute a project interact and are interdependent.

In complex situations that involve relationships with broader inter-organisational teams and several stakeholders, integrated solutions become necessary by partnering with other stakeholders (Kirsilä, Hellström and Wikström, 2007). In such cases the use of systems thinking helps managers to look at organizations from a wider perspective and to properly interpret attitudes and events within their organizations (McNamara, 1997). In the public sector, however, this thinking approach is not welcome because it demands negotiation in situations where policy and political conflicting interests play a role (Chapman, 2004:85).

Management based on scientific management can produce positive effects in the short term and when the environment is regarded as relatively stable. But in the long term it is not workable because of the changing project environment. To cope with environmental changes, there is a need for project managers to reengineer the organizational structure, redefine project objectives and readjust plans, strengthen partnerships with stakeholders and adopt a leadership style that is appropriate for such situations. Therefore, systems thinking appears to be an appropriate approach, helpful in the analyzing of the dynamics of different relationships and interconnections between project interfaces (people and material aspects) as illustrated in Figure 2-5. It helps to analyze project risks associated with the environment, identify areas of cooperation and therefore make realistic planning possible, based on relevant information from the perspectives of various stakeholders with different interests, needs, expectations and perceptions regarding the project.

**Figure 2-5: An organization or project as a system**



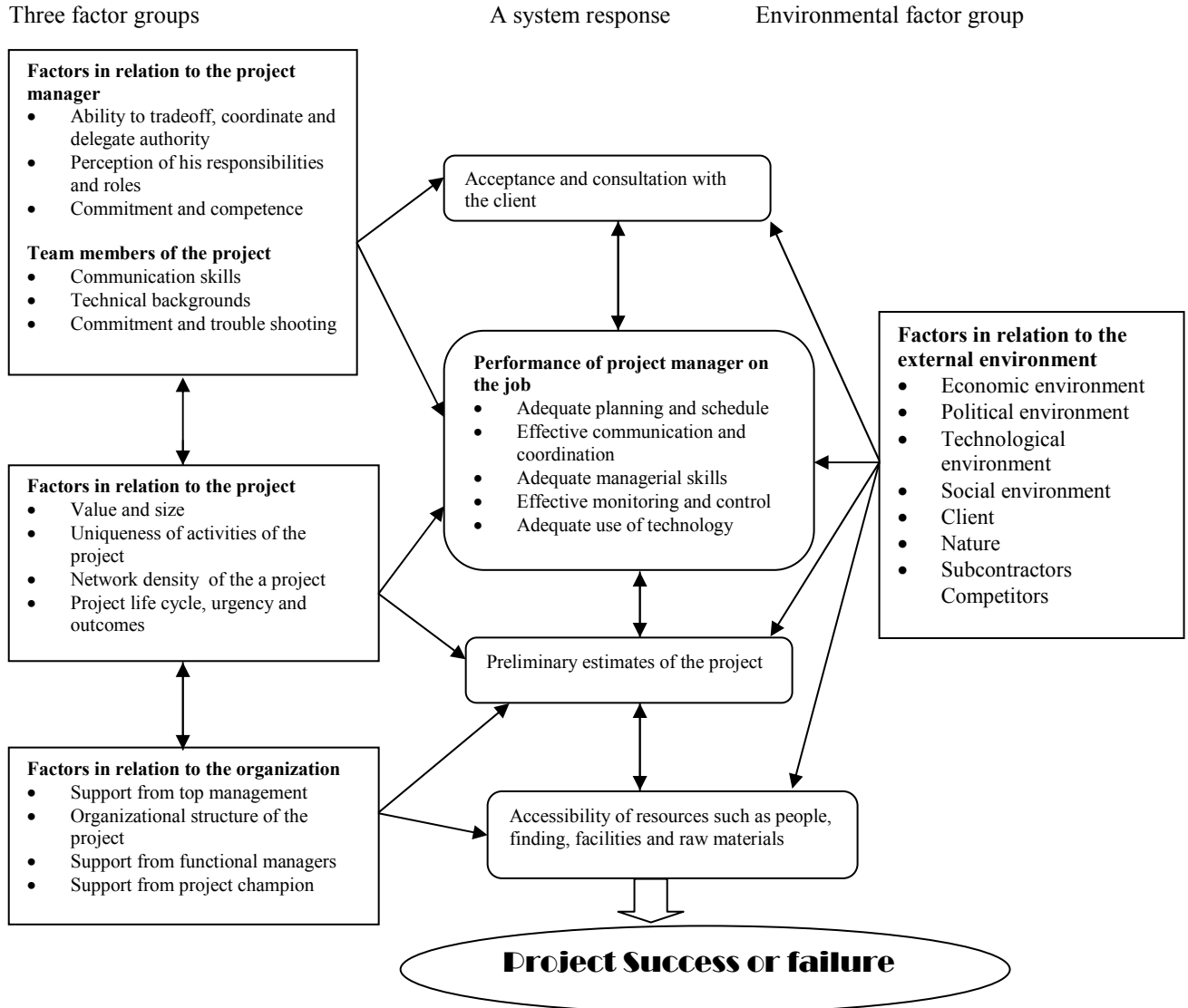
This figure indicates different factors playing a role within and outside of a project that can significantly influence it. The figure also indicates that any organization (project, or other organizational entity) is composed of hard elements, (especially resources) including buildings, land, equipment, furniture, people, water, electricity, etc., and soft elements involving rules,

norms, stakeholders' perceptions, attitudes, motivations, experience, knowledge, desires, interests, expectations, etc. These elements are part of the internal environment. Within the system, the sub-system of hard elements and the sub-system of soft elements influence each other. For instance, hard elements can determine the nature of buildings, equipment, and the amount of water or electricity that people need to improve their productivity and health conditions. The external environment includes elements such as law, politics, technology, health, education, demography, globalization, markets of products and services, financial institutions, religious institutions, climatic conditions, etc. They influence each other outside the system, but they also influence the internal environment. Globalization, for example, can externally influence market prices, government policies regarding politics, education, health, etc., but they can also positively or negatively affect the internal functioning of the system.

In establishing relationships between the project interfaces (stakeholders and material aspects), systems thinking helps to identify all potential stakeholders, their needs, roles, interests and expectations. It is useful to identify the project's resources, possible positive and negative environmental influences, potential risks of conflict, and areas of cooperation, all of this to minimize negative forces and strengthen positive forces. Therefore, the approach offers powerful techniques that should be used for planning and implementation of a project.

Belassi and Tukel (1996) found that the systems thinking approach is a key critical success factor because it helps to identify real CSFs and establish cause-effect relationships between those factors. An illustration of this analysis is provided in Figure 2-6.

**Figure 2-6: Belassi and Tukul's model of critical factors of project success or failure**



Source: Belassi and Tukul (1996).

From Figure 2-6 it becomes clear that the groups under consideration are interrelated to such an extent that any one factor affecting one group, may influence a factor from another group and that combined factors from different groups may cause the failure of the project. The model helps to determine whether the project's success or failure is connected to external environmental factors or to project management. Another advantage of the model is that it establishes relationships between factors located in various groups. In fact, the availability of resources is a system response to the environmental factors (general economic situation), organizational and factors related to the project management such as negotiation skills of the manager and top management support. Therefore, the model is useful for the project manager

who can monitor and evaluate his project with more accuracy. In the same way, the competence of the project manager is shown to be a critical success or failure factor because it influences the project planning, schedule and communication. Hence, adequate planning, scheduling and communication, instead of being real critical factors, are direct consequences of factors related to the project manager, such as his technical background, aptitude and managerial skills (Belassi and Tukul, 1996).

Regarding factors related to projects, the study conducted by Tukul and Rom (1995) reveals that in many large-size projects of more than 100 activities, duration exceeded the projected deadlines. As a result, monetary penalties occurred as well as a loss of credibility. Belassi and Tukul (1996) found that in some cases, resource constraints lead project managers to use overtime risking their budget performance, or finding themselves forced to delay activities that compete for the same resources. Such a delay will cause further delay in the overall completion of the project. Some projects are urgently implemented, for example, after natural disasters. Projects implemented in such circumstances are expected to occur budget overruns because they don't have enough time to dedicate to project planning and scheduling and such projects may come to be perceived as failures.

Characteristics and skills of the project manager and members of his project team are identified as crucial for the successful completion of a project. A study conducted by Pinto and Slevin (1987) shows the value of choosing project managers who have the administrative and technical skills needed for a project's successful termination. They indicate that the aptitude and commitment of the project manager are especially critical during the phases of planning and termination. The competence of his project team members was also found to be an important factor for the project's implementation. These factors impact on the satisfaction of the client and affect the results and overall acceptance of the project. The experience of Belassi and Tukul (1996) indicates that the marketing skills of a manager influence the attitude of the client towards the project outcome. Furthermore, well established channels of communication between the organization, the project manager and the client are factors that lead the client to a favorable interpretation of the project's outcome.

As Belassi and Tukul (1996) assert, factors linked to the organization, for example the support from top management, are critical for the successful completion of a project. Having a person in top management championing the project's cause, generally leads to stronger support for

managers. They may receive more detailed knowledge of the project's objectives as defined by the project client. Top management normally controls the manager's access to available resources, managed by functional managers. In this and other ways a 'project champion' in the top can help managers to realize objectives. The level of support that can be expected from the functional manager is generally determined by the level of the support given by top management. If the project belongs to the functional department, the availability of resources is not generally a problem as the project manager is usually also the functional manager. However, when projects are organized as part of matrix structures or, on the other hand, purely as a single project, it is difficult to acquire adequate resources. It is then that a manager needs to have a certain power within the organization and good negotiating skills. It is clear that full support offered by the organization facilitates the application of strategies, needed for the successful completion of the project.

According to Belassi and Tukel (1996), factors relating to the external environment, such as technological, social, political and economic factors, and including even factors linked to nature, will affect the performance of the project. The empirical study conducted by Pinto and Slevin (1989) reveals that environmental factors are among the most important factors that influence the project planning stage. Environmental factors such as social and climatic conditions affect the project in all the phases of its life cycle. In some cases, these factors become so influential that they lead to the project's termination already in the implementation stages. Morris and Hough (1987) indicate that governments are also among external and influential factors affecting the success of a project. In some cases, the public attitude towards a project poses a crucial problem. A client, who is external to the organization, is regarded as an external factor that influences the project performance. Functional projects don't cause problems because the client generally belongs to the organization at the level of top management. In such a case, factors in relation to the project client are classified under factors linked to the organization. Other external environmental factors that influence the project's success include subcontractors and competitors in the market. Inadequate consultation between client, competitors and subcontractors can lead to the project's failure.

Looking at organizations in a systematic way can help to eliminate assumptions that a project environment is stable. Environmental factors including, culture, technology, politics, economy, demography, ecology and weather are dynamic and have significant influence on the project's success. Systematic thinking is useful in identifying direct and indirect influences, negative and

positive influences, internal and external influences, and seeing how they interact. The use of systems thinking in projects is useful to discover potential areas of cooperation, conflict and risks which are associated with the diversity and complexity of organizational environments and of stakeholders who have different cultures, educational backgrounds, needs, interests, roles, objectives, and expectations. This approach helps to manage diverse and complex situations by dealing with identified risks before they occur. However, the systems thinking approach is not known, undervalued, or overlooked by many project organizers.

### **2.1.9 Assessment of the applicability of the project critical success factors (CSFs)**

In theories developed to explain the success or failure of projects, authors focus on one or a few specific CSFs, rather than on other factors. In most cases, it is assumed that the environment in which projects are implemented is stable and predictable. This is workable, and proved to be so in many developed countries which were the first to introduce and apply project management principles. In those countries the environment was relatively predictable and characterized by political and economic stability, adequate infrastructures, an educated literate population, industrialized, and so forth. In most developing countries, however, the situation is different. These countries are characterized by political unrest, high levels of illiteracy, inadequate infrastructure (education, health, justice, communication and road network, transport, banking system, law, etc), poor climatic conditions, high population density, poor technologies and unstable economies. Therefore, principles of project management that succeeded in western countries are challenged in developing environments.

It is understandable that the building of partnership relationships was included in the CSFs: parties conclude contracts but later on in some cases conflicts arise because of changes in the project environment. For example, inflation and exchange rates increase and cause an increase in prices of raw materials and delays their delivery to users. Such fluctuations necessitate negotiations for the adjustment of contracts that can lead to conflicts and delays.

Appropriate project leadership contributes considerably to a project's success. A project leader may be seen as empowering, motivating, influencing, communicating, team building, strategizing, visionary, decision-making, and problem-solving. In such a case, his employees may be expected to be motivated, satisfied and productive at work. However, because of the changing environment, employees may need other things from their manager: new knowledge



and skills, information about new technologies, improved working conditions, an increase in salary and so forth. The new situation may present a challenge for the project and make huge demands on its resources. The inability to respond to the changed environment may result in strikes, personnel turnover and dismissals. In short, there is no leadership style that is best and universally applicable. A leader who would succeed in a changing environment is the one who can adopt any leadership style and fashion it to fit new situations or who can combine various leadership styles depending on the requirements of the environment at a certain moment in time.

Planning and implementing projects while assuming stability of the environment is a mistake. The environment is complex and can be turbulent. Project elements are so interconnected and interdependent that the modification of a single one can influence the whole system. For example, the modified quality of a product in response to new needs expressed by client or customer may affect resources, activities, budget, leadership style, technology, stakeholder cooperation, etc. Political unrest and social violence between and within countries may produce the same effects. In countries like Rwanda, the Democratic Republic of Congo and Sudan, political unrest caused many projects to fail. People were killed, huge amounts of resources were plundered and social and economic infrastructures were destroyed. The events adversely affected projects, their resources, and activities and some projects were forced to close before completion. The influence of change is important too in the field of technology, where long-term investment in projects is affected because recovery would be too slow in relation to rapid technological developments. These examples indicate that risk management is an important CSF in project management. It helps to anticipate potential undesirable events that might adversely affect the project and to take timely measures to face them.

It is wrong to assume the stability and predictability of a project environment. But also the selection and use of CSFs requires flexibility because what works for specific projects in specific environments, does not necessarily produce the same results for other projects in other environments. For example, a mushroom cultivation project and a coffee cultivation project may use the same CSFs, but each project will focus on specific factors more than on other factors, in response to different project activities, resources, durations, stakeholders, risks and opportunities.

The use of systems thinking in project management can be useful in dealing with uncertain, complex and turbulent environments in that it helps to establish relationships between stakeholders, the soft and hard elements of a project and to select CSFs which are suitable and adaptable to environmental changes. The effective use of the approach embraces diversity and the multiple perspectives of stakeholders and it opens the door for stakeholders to collaborate and negotiate when conflicting situations occur. The approach identifies potential risks and helps to anticipate appropriate solutions. This way of thinking is a useful strategy for the planning and implementing of successful and sustainable projects in complex, uncertain, and turbulent environments. It would have been useful for the GADP as a manner of dealing with its particular environment that was marked by a high degree of uncertainty and complexity. The approach is helpful too for finding answers to the research questions of the current study.

## **2.2 THE CAUSES OF PROJECT FAILURES RELATED TO MANAGEMENT ISSUES**

Frigenti and Comminos (2002:326) state that the main reasons for a project's failure include poor project definition, inadequate scheduling and resource allocation, lack of general information and losing control of the project. The lack of integration of risk management in the overall management of an organization and in the projected life cycle, as well as ineffective management and leadership contribute to the failure of a project. This section focuses specifically on project failures associated with the internal environment of the project management.

### **2.2.1 Problems of planning: project definition, scheduling and resource allocation**

Some projects fail in their early stages because they are not well defined. Quoting Kerzner (1994), Frimpong (2003:80) found some typical reasons that explain the failure of plans. They include the following; The project goals are not known at the lower levels of the project team. Financial estimates are poor with too much work to be done in too little time. Plans rely on inadequate data and planning is done in a rush. The information on ultimate objectives, staff requirements, schedules and reporting, etc., is poor. Keeling (2000:61) found that poor organizational structure, lack of feasibility study, inadequate planning, poor human relations and ineffective control are symptoms of managerial inaptitude and are common in projects all over the world.

As Peter (2006) points out, the roles played by internal and external stakeholders in a project as well as their assignments, are often not clearly defined at the beginning of the project. Project Management Centre (2004) and Bolles and Hubbard (2007:162) emphasize that activities and tasks to be carried out are not adequately scheduled. As a result, costs and necessary resources, such as time and personnel, are not objectively determined. Supporting this idea, the United Nations Centre for Human Settlements (2003) found that at the beginning stage of a project, the consultation between implementers and local people is often non-existing so that there can be no understanding of the real local needs and the project will almost certainly fail.

The project's success depends on the specification and allocation of resources such as money, materials and human resources. Project Management Centre (2004) holds that in some cases, within or outside of a project, resources are not respected and properly committed by the project team. This causes delays in the implementation. For instance, in Ghana, recent findings from a study undertaken by Frimpong, Oluwoye and Crawford (2003) into the construction of groundwater projects indicated that delay problems resulted in arbitration, disputes and even total abandonment of a project with the resulting lawsuits, extra costs and loss of time. Aibinu and Jagboro (2002) observe that the main causes of delays included poor contract management, problems of funding, late payment for completed works, shortages in materials and changes in site condition.

Client-related delays comprised cash flow problems, slow decision-making and variation in orders. Contractor-related delays involved material management problems, financial difficulties, inadequate site inspection, planning and scheduling problems, shortage of manpower and problems of equipment management. Extraneous causes of delays included labour disputes, strikes and inclement weather (Aibinu and Jagboro, 2002; Frimpong, Oluwoye and Crawford, 2003).

As Frimpong (2003:112) states, time management is critical to the project's environment. Unlike other resources, time cannot be purchased but it can be budgeted for, as money is. He found that, as the project staff are usually busy with numerous meetings, conflict resolution, report writing, communication with customers, continuous planning and re-planning, they often fail to manage their time properly in order to cope with a changing environment.

In Saudi Arabia, a survey of delays in public utility projects has been conducted. The findings reveal that the main causes of delays involve lack of resources, low productivity, conflicts related to contractual agreements and poor communication between consultants, owners and contractors (Ghafly, 1999 quoted in Keeling, 2000:60).

This experience shows that the phase of the project's planning should be the concern of all key stakeholders involved in the project. The failure to adequately involve them at the beginning can lead to unsuccessful projects because the areas of project management involving project integration, management of time, quality, cost, human resources, procurement, communication and risk, have not been objectively taken into consideration during the process of planning. This failure has a negative impact on the next stages of the project (execution, control and termination). During the phase of implementation, problems such as budget overruns, delays, defective product or service, poor relations among the project stakeholders, lack of resources and inadequate communication appear. This situation does not help to prepare for the closing down phase of the project and can lead to its premature termination.

### **2.2.2 Inadequacy of information and communication**

According to Diallo and Thuillier (2005), cooperation and communication between stakeholders are some of the key factors strongly linked to project success. However, communication facilities and the flow of information in developing countries are not satisfactory. The Project Management Centre (2004) found that successful project management involved identifying those stakeholders' needs that are covered throughout the project's life-cycle. But in some cases, project team members did not fully understand that they were responsible for gathering and supplying information and communicating with stakeholders. Information on the key aspects of the project was judged very important because lack of information causes misunderstandings that make the project implementation very difficult. Information gathered by documenting the project's implementation and lessons learned, helps to improve the performance of the project and of the whole organization, as well as promoting the success of ongoing and future projects. However, it has been observed that a number of projects did not have an adequate information management system. Project Management Centre (2004) confirms the lack of information management systems in the early stages of projects and throughout their life-cycle. A compilation of information is useful as well in the closing down phase of the project. New projects often ignore experience and information from previous projects which could be helpful

in careful project planning, and especially in the scheduling of activities and the estimating of costs.

Lubbers (2000) puts a strong emphasis on the use of information technology facilities such as the Internet in a world that belongs to the information age. Brynjolfsson, Hu and Smith (2003) found that the internet facilitates free movement of many new products and services from distant lands and make them accessible. According to Lubbers (2000), many people in developing countries believe that the internet is an opportunity for access to knowledge and services from all over the world. However, as Castells (1999) states, the transition from the industrial age to the information age is not an easy one. The information age requires that society be educated and able to understand and use complex information. However, he found a lack of education on information technology from primary school to university, that is, throughout the whole educational system.

It is obvious that information and communication technology (ICT) is a leading factor in the context of rapid educational, social, and economic advancement in developing countries. However, in such countries, highly skilled human resources in ICT and infrastructures such as electricity supply are still insufficient to take advantage of the ICT benefits.

### **2.2.3 Losing control of project**

In developing countries, some projects fail because of a lack of control. It is expected that changes in terms of project scope, schedule, budgets and quality could occur during the project implementation. However, in many cases, the project management fails to control these changes carefully and systematically. Project control is helpful too for using resources efficiently (Management Centre, 2004) and for measuring the project's progress so that corrective action can be undertaken when there is still time (Burke, 2001:191). If there is no such control, the project manager becomes incapable of taking corrective actions because he waits for the project's completion (Burke, 2001:191). In this regard, The Management Centre (2004) found that project agreements are not executed as expected, and this problem often leads to unnecessary delays in decision-making.

#### **2.2.4 The lack of integration of risk management in management systems**

It is a mistake to assume that normal working conditions and practices will prevail throughout a project's life-cycle (Burke, 2001:83). In actuality, most decisions, including those about investments, are made in uncertain environments (Blandón, 2001). Projects are subject to environmental uncertainties mainly because of external factors and poorly defined projects. Uncertainty comes from the lack of clarity with regard to the project goals and the means to attain these (Alderman et al., 2005). This affects project management processes throughout the life cycle (Jaafari, 2001), particularly the planning and control of activities, resources and costs. However, some project managers pay little attention to this critical issue, whereas the process of risk and uncertainty management, if pursued on a holistic and continuous basis (Jaafari, 2001), is very helpful in adapting a project to its real environment (Project Management Centre, 2004).

That is why Wyk et al. (2008) suggest that reducing uncertainties by applying risk management is very important, especially for construction, engineering and technology projects. Atkinson et al. (2006) and Burke (2001:83) strongly support this idea, suggesting the availability of allowances, used to cover defective work. Defective work is due to the underestimation of the work's content due to a lack of definition of scope, a limited supply of local skilled labour, and the costs of reworking and replacing, which are caused by a lack of materials, underestimation of bills of materials or the failure of a component. Defective work also results from labour and equipment staying idle because of import delays and bad weather, and from lost production because of strikes. Scope change, lack of experience, some unforeseen regulations and unexpected procurement price changes contribute to defective work, which causes unnecessary costs, delays in project activities and lengthening of the overall project duration.

Risk management should involve all key stakeholders throughout the project life cycle because they contribute different knowledge, skills, experience, interests and expectations, which are all sources of the project's complexity, uncertainties and risks they will usually change along with environmental changes. If risks are not well understood, analyzed and integrated in the project planning, they will create serious problems during its implementation and termination. It is not enough to have allowances available to solve problems of rework caused by the abovementioned factors. An effective strategy should entail the prevention of problems through building strong partnership relationships among stakeholders, and getting skilled and motivated people who are committed to do the right job in the right way the first time they are faced with it.

### **2.2.5 Project Life cycle**

Project failure can be assessed throughout the project life cycle. Keeling (2000:59-62) indicates that causes of project failures are found in all the phases of its life cycle. In the concept phase, project failure is attributed to sponsors and owners who do not devote enough resources and time to a proper study of the project's feasibility. This often results in unclear terms of reference and inadequate research and risk assessment as part of a feasibility study. A lack of close cooperation with key stakeholders hinders the project or prevents its progress. An adequate structure and feasibility provide an essential basis for normal progress. Management failure in the project's conceptualization phase poses serious problems. It is very difficult for a badly structured or not quite feasible project to survive unless omissions and errors are rectified in its early stages. In the planning phase, owners, advisors and sponsors are held responsible for the project's failure due to inadequate management structure, poorly defined objectives, inadequate planning of capability and lack of activity planning. The lack of risks analysis and contingency plans, poor contract negotiation, ineffective resource planning, inadequate provisioning of finance, poor budgeting and poor cash flow forecasts are also classified among major factors leading to project failure (Keeling, 2000:61).

In the phase of implementation, the responsibility for the failure of a project is attributed to sponsors, manager and team leader. The problem is due to inappropriate styles of leadership, poor selection of team managers and leaders, late delivery of essential equipment and materials and poor resource provisioning. Moreover, inattention to training and team development needs, inadequate control and monitoring by team leaders and managers, poor activity coordination and cooperation, and poor communication of reporting procedures are referred to as key factors causing a project to fail (Keeling, 200:61-62).

In the project's closing down phase, those responsible for the project's failure are senior project personnel who do not complete the project activities on time or reach the required quality standards. Inadequate arrangements for the closeout phase, the lack of project sustainability and inappropriate project evaluation and follow-up, also constitute major reasons for a project to fail (Keeling, 2000:62).

The sustainability of a project needs to be considered from the start with the gathering of relevant information on the environment and on project stakeholders, their needs, interests and expectations. Putting together these elements and matching them with general and specific objectives, activities and resources of the project in the planning processes can lead towards positive outcomes during the implementation phase. But in order for this to happen all stakeholders involved in the project need to work together as a team in an atmosphere of cooperation, from the beginning to the end of the project.

### **2.2.6 Ineffective management and leadership**

In Saudi Arabia, surveys of project failures have been conducted and the findings show that factors causing project failure include the difficulty to acquire work, a low profit margin, problems with cash flow, and the lack of experience in project management and in the firm's line of work (Jannadi, 1997 quoted in Keeling, 2000:60). Regarding leadership, (Frimpong, 2003:211) indicates that ineffective leaders were the cause of project failures. They were over-dependent on a mentor or superior. They were harsh and insensitive to others and intimidated them. As a result, they failed to cope with specific problems of performance which they would not admit to, or shift the blame for, or cover up. They pushed too hard to get ahead (over-ambitiousness) but they were unable to select and develop useful staff and think strategically. They were also unable to adapt to a superior with a different leadership style.

Inadequate leadership can lead to project failure. But other factors also need to be considered. For example, employees may be not ready or willing to cooperate with a leader even though he is a good one. Or employees may not want to take responsibility because of a lack of skills, or they are strongly preoccupied with other things such as personal and family problems or political issues.

## **2.3 CHAPTER SUMMARY**

This chapter identified project critical success factors and located areas of project failures which are regarded as common to various projects performing in different social and economic sectors. It particularly dealt with project failure in relation to the project internal environment (management issues). But some projects fail because of external factors. Failures related to the project's external environment are systematically developed in Chapter Three.



## **CHAPTER THREE: THE FAILURE OF DEVELOPMENT PROJECTS**

In this chapter, project environmental factors are developed. They are particularly concerned with Local Economic Development (LED) projects and agricultural projects. Other factors include culture, Foreign Direct Investment (FDI), the global economy as affecting developing countries, and case reports of successful and unsuccessful projects.

### **3.1 THE CONCEPTS OF SUSTAINABLE DEVELOPMENT AND DEVELOPMENT PROJECTS**

Porter et al. (1991:95) found that projects are an important instrument through which investments are organized, public and private resources managed, and national and sectoral plans developed. In agricultural development projects, these plans concern cropping patterns, water, roads and social infrastructures such as health and education. According to Frimpong (2003: 9), development projects combine the delivery of the project outputs and the mobilization of local people to benefit from them. In some cases, these projects are designed and executed to implement the local economic development (LED) strategy. These are known as LED projects. The focus of development projects is on softer aspects such as capacity building, empowerment of community members involved in a project, and sustainability which is the long-term continuation of the project's benefits. These aims are achieved through a social and participative learning process and through the management of projects. Quoting Nel (1997:3), Frimpong (2003:9) found that development projects encourage and assist the beneficiary community to be actively involved and to take ownership of project assets. Development projects enhance their sustainability by minimizing negative environmental impacts and by alleviating poverty through maximizing the benefits in the short, medium and long term. These projects channel the training and capacity building of the local community.

For Hulse (2007), sustainable development is reached when people are economically, socially and politically empowered. Sustainable development encompasses economic security that is guaranteed through improving poor people's assets, diversifying economic activities and providing mechanisms of insurance against adverse shocks, access to affordable credit, training in management and technology, creation and maintenance of indispensable infrastructures. As Netshitenzhe (2008) indicates, they are designed to make desirable developmental changes in the

areas of household and community assets, health, employment, education, safety and security, social cohesion, good governance and international relations. Brundtland (1987b) argues that all social and economic development plans are necessary because they are helpful in the assessment of potentially undesirable environmental consequences such as air pollution and exploitation and depletion of natural resources. For instance, as Harris (2001) and Hulse (2007) indicate, unrestricted growth of population is unsustainable as it leads to the spread of intensive agriculture. It ignores conservation of resources and results in excessive water consumption, water and air pollution, the cutting of trees for fuel, the loss of arable land because of the overgrazing of natural pastures, the loss of soil fertility, and it ultimately causes severe famine.

In Malaysia, Othman and Pereira (2007) have observed that increased access to sources of clean water was a powerful factor in the reduction of the spread of infectious diseases and enhanced health, particularly in the rural communities. However, rapid economic growth in terms of urbanization, industrialization and transportation caused water and air pollution, which adversely affects the life and health of people and wildlife. The transportation sector was improved through increasing the number of vehicles. Remarkable improvement was found in the areas of industrial, residential and commercial activities. The agricultural sector was also developed. However, the social and economic advancement of these activities was accompanied by air pollution with carbon dioxide (CO<sub>2</sub>) being produced in the following proportions: transportation (49%), industries (41%), residential and commercial activities (7%) and agriculture (3%). As a result, climate warming directly begins to affect the quality of life, health and productivity. As Watkins (2006) highlights, the deficits in water and sanitation and resulting ill-health remain obstacles to productivity and economic growth and deepening inequality that characterizes the globalization phenomenon and traps vulnerable households in the endless cycle of poverty. For instance, every year in the world about 1.8 million children die as a result of diseases caused by poor sanitation and unclean water.

Health should be protected, because it improves, inter alia, productivity in the workplace and it limits absenteeism due to illness and, ultimately, death. For instance, the findings of a study undertaken by the Bangladesh Garment Manufacturers and Exporters Association (2003) quoted in UNDP (2003) reveals that, in Bangladesh, basic social policies related to education, health, family planning and reproductive health services played an important role in lowering the population growth and increasing the literacy rate. This contributed to the increase of economic growth and poverty reduction. In fact, income poverty dropped from 48% in 1989 to 34% in

2000. The positive changes fostered by exports reinforced the need for better-educated people. As a result, the manufacturing sector became successful. Exports rose from US\$ 867 million in 1991 to US\$ 4.6 billion in 2002.

This example taken from the health sector indicates that social and economic infrastructure is an important condition for attaining sustainable development of a country at large and for sustainable business organisations and development projects in particular. Thus, planning and implementing development projects with little or no attention for infrastructure contribute to an increase in the rate of project failures. This is because inadequate infrastructure in a country lead to an increase in transport and communication costs, a decrease of productivity in the workplace and it results in a poor quality of products or services and waste of scarce resources. Furthermore, it would be a good thing if social and economic plans for the implementation of development projects would involve the use of systems thinking to deal with complex and uncertain environments, because the improvement of some areas of social and economic life cause serious problems in other areas of existence. Through the systemic approach, interactions and interconnectedness between various soft and hard elements of projects associated with unstable environments can be established to identify potential problems and to predict thoughtful ways of dealing with them.

### **3.2 LOCAL ECONOMIC DEVELOPMENT (LED) PROJECTS**

According to Trousdale (2003:1), the key point of LED lies in the collective participation of local people from all sectors of life, people who work together for sustainable economic development. As the World Bank (2003:7) states, the public and business sectors work jointly to improve conditions for employment and economic growth through the process of LED, which is aimed at improving the quality of life of all people. Cunningham and Meyer-Stamer (2005) observe that LED involves various organizations in the designing of LED projects. The detailed planning of LED projects includes the defining of tasks, realistic timetables, responsible parties, human and financial needs, sources of funding, results, expected impacts, measures of performance and evaluation methods to assess progress.

Trousdale (2003:5) asserts that through the process of planning and implementation of LED projects, the local government is better positioned than other stakeholders to integrate LED plans that include environmental and social objectives, and to play an important leadership role. This is justified because local governments, democratically elected, are accountable to citizens and

deeply involved in the activity of local business as tax collectors, suppliers of infrastructures and regulators of land. The growing trend is towards decentralizing local governments. This enables them to play a role in matters of global consensus, and to be fully committed to the execution of LED projects associated with the policy of poverty reduction and to address the problems of market failure.

However, in developing countries, local governments lack funds because decentralization of responsibilities is not always followed by decentralization of taxation or funds (Ministry of Finance and Economic Planning, 2007). They tend to be overpowered by new responsibilities and focus on pressing and immediate problems such as inadequate social infrastructure, the lack of physical infrastructure, corruption and the lack of transparency in the processes of decision-making. They are willing to implement LED projects and empower citizens but they do not have enough organizational and communicative skills to be effective in delivering quality products and services (Cunningham and Meyer-Stamer, 2005). In addition to this, politicians are often not comfortable with the LED strategy and, because they are accountable to citizens, they tend to try and avoid anything that is risky and unpredictable (Cunningham and Meyer-Stamer, 2005). This is a great obstacle in communication processes: the lack of exchange of information among different economic actors does not guarantee a successful coordination of activities and it creates an atmosphere of conflict and distrust among the stakeholders (Ministry of Finance and Economic Planning, 2007).

As Cunningham and Meyer-Stamer (2005) state, bureaucracies and inefficiencies in governments at national and local levels, constitute major barriers to successful business development because they handicap the process of continual learning and collective participation of all stakeholders from various sectors in planning, implementing and evaluating LED projects. Donor Guidelines (2001) found that local governments recorded many market failures because they lack experience in implementing the LED strategy and cannot effectively assist business organizations by providing them with helpful services. Therefore, small and medium enterprises got financial support from international organizations, but state-owned enterprises did not produce the desired social and economical benefits. Rather, they often collapsed after the donors' withdrawal. Meyer-Stamer (2005) adds that special economic zones, fiscal incentives, cluster promotion and technology incubators come and go, often without making a significant difference.

According to Mintzberg (2010), many governments are willing to efficiently provide services, but globalization does not permit that efficiency. Globalization is about taking down trade barriers and allowing free movement of people, goods and services, and direct foreign investment from one country to another. Mintzberg (2010) argues that globalization is much more suitable for multinational companies than for business on a local scale. It is perceived as aggressive and as forced onto poor countries. The ultimate objective to be achieved by developed countries is to open markets everywhere in the world for their manufactured goods and to close their own markets to poor countries which become marginalized. Even national governments, which have been democratically elected, are victims of that unfair economic development. Poor countries are forced to imitate developed countries rather than following a process of learning. Cunningham and Meyer-Stamer (2005) observe that globalization is forced development and one of the main causes of market failures in developing countries because copying without time for reflection, is a mindless activity that damages dignity, pride and the confidence that people have in their own culture and socio-economic setting. This makes it difficult for local governments to play their visible role of mobilizing their nation and give leadership. But this is not the case in developed countries where patterns of governance have evolved from hierarchical to network structures and to implicit cooperative relationships. Mintzberg (2010) asserts that SMEs, when working cooperatively in local networks, can lead to income generation and job creation. But this is only possible when they can exercise their civil rights regarding the freedom of choosing their business activities and location.

From the above it becomes clear that it is very difficult to make a sustainable success of projects designed to implement Local Economic Development strategy in an atmosphere characterized by governmental bureaucracies and inefficient services, threatening globalization forces, lack of cooperation between all key stakeholders, lack of skills in project planning and communication, and governmental decentralized structures, without true empowerment of the local community. In such an atmosphere, inadequate leadership, corruption, and lack of control, accountability and responsibility are manifest and these interfere with the success of projects as they bring about poor project planning, waste or lack of resources, delays, poor quality of products or services, embezzlement and increase of unnecessary costs. This situation is also an obstacle to effective participation of the local people, who are perceived as the main beneficiaries and actors of the LED projects. Projects planned and implemented in such an environment do not make a significant contribution to the sustainable development of developing countries. Sustainable development would mean that LED projects contribute to the increase of skills in project

management, improvement of social life (health, education, shelters, etc) and of economic life (transport, communication, incomes, employment, etc) as well as increased conservation of the environment (protection of natural resources such as air, water, land and forests). Again, collaborative relationships among all role players in and around a project are invaluable when it comes to promoting and maintaining sustainable development of the people.

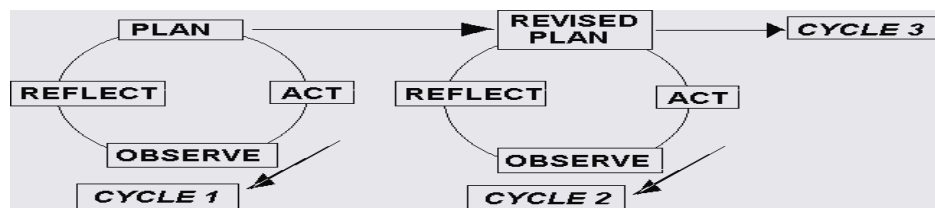
### 3.3 AGRICULTURAL DEVELOPMENT PROJECTS

Agricultural development projects are a part of LED projects, which are classified among development projects. Although agricultural development projects have their own specific agricultural problems, they also suffer from the problems plaguing LED projects. The implementation of sustainable agricultural development projects requires the total commitment of key stakeholders involved in those projects and takes into consideration elements such as participatory development approach, gender mainstreaming and farming systems (systemic approach).

#### 3.3.1 Participatory development approach

Seymour-Rolls and Hughes (2000) argue that several developments have recently appeared, bringing about increased interest in trends toward participatory approaches in development. The Food and Agriculture Organisation's work on participatory approaches has been particularly successful and has shown that a strategic use of participatory tools can have good results in agricultural projects. A participatory approach, which is extensively used, is known under the title Participatory Action Research. It is an action research cycle as indicated in Figure 3-1.

**Figure 3-1: Action Research Model Cycle**



Source: Riding, Fowell and Ley (1995).

The figure indicates that throughout the process of learning in an iterative way, stakeholders research, plan, act, observe and reflect on results and the process continues until satisfactory outcomes are obtained. Effective participation of stakeholders implies a learning experience during the execution of a project through the use of information technology and communication and networking possibilities, and through strong partnership relationships. People can use this participatory approach to determine their own way of participating, reflecting, empowering and emancipating themselves for improving their social situation.

Action research is viewed as a process, which is created to make positive change (Seymour-Rolls and Hughes, 2000) and it maintains its true meaning only as long as it remains collaborative. This is made possible through discussions among participants where critical examination of actions takes place (Kemmis and McTaggart, 1988: 5). All participants are actively involved in all the processes of planning and implementation of the outcomes of research (Welman and Kruger, 2001:190). Many organizations in the world have adopted the term “Participatory Research and Development” (PRD) with the focus on collaborative relationships for capacity development, technology transfer, and sustainable management of natural resources.

In South Asia, the participatory development approach was used as a suitable way of involving the community in selecting a project of appropriate varieties of upland Ahu rice for cultivation. It helped to get a better understanding of the cultural diversity of various farming communities living in a similar environment. These communities, through interacting continuously, began to understand each other’s behavior and learned more about farming practices and options for their livelihoods. As food security and income have dramatically increased in many agricultural communities, they are now faced with the challenges of endangered natural resources and environmental protection. The PRD approach was used to overcome this challenge by getting people to share knowledge about livelihood outcomes that benefit the poor and that enable the poor to be involved in agricultural production while conserving natural resources on a long term basis, and by facilitating joint learning and action by local communities (Vernooy, 2010).

As agricultural activity led to an increased demand for water, farming communities in the high mountains of Bhutan (India) found that for the successful management of irrigation schemes they had to act collectively. Farmers learned to analyze their irrigation problems and, through guidance provided by researchers, to agree on improved schemes for water management. Gully

formation and erosion were common problems of irrigation systems in hilly land in Bhutan. Farmers came to understand and jointly recognized that these problems arose from improper water use practices. Therefore, they started to plan and implement a project of sustainable management of local water (Vernooy, 2010).

In Lesotho, the situation was different. The increasing population growth caused great pressure on the land with the negative results of deteriorating soil and decreasing agricultural yields. This problem made the country unable to produce sufficient quantities of food for sustaining its population. In this context, the Thaba-Tseka Project, an agricultural development project, was implemented. The original plans of the project for crop improvement were based on the idea of shifting from substance crops to the production of cash crops for the market. In the project documents there was a theme of popular participation, which would be translated into being actively involved in the decision-making process in relation to economic development of the region through involvement of decision-making media and village committees. To make this to happen, the administration of Thaba-Tseka District would be decentralized (Ferguson, 1990).

However, as Ferguson (1990) states, things went differently. The project appeared to be failing in 1979. It was reported that the project was purposely implemented in that particular region for the service of the Government, which desired to increase its political control over the strong opposition in the rural areas. Hence, government services were put in place in the Thaba-Tseka area, the project center. Those services included a new prison, a police station, an immigration control office and a post office. The district was dominated by a political and military presence. There were also agricultural services (seed supply and livestock marketing), health officials in charge of child care and nutrition, officers with responsibilities to promote approved methods of cooking. Moreover, the project made a huge investment in road construction to link the region of Thaba-Tseka with the capital instead of transforming crop farming or livestock rearing. As a result there was but a small increase in agriculture and in improvement of the welfare of rural households.

In Kenya, in May 1975, a proposal was prepared for the Magarini Project, an agricultural development project. The project had three phases (project approval, implementation and extension services) and was approved in June 1976 and funded by the Australian government. It has been reported that most of the serious environmental constraints were foreseen, but not taken seriously enough. Various social and human constraints were not considered by the Australians.



For instance, many of the professional agriculturalists from Australia arrived in Kenya, and more specifically at Magarine, with preconceived ideas that they could shift the primitive form of cultivation patterns practiced by the people living in the area to resemble those of fellow-Kenyans who had inherited their customs from the British. Factors such as unpredictable rainfall, variability in inland crop yields, problems of soil conservation and conditions to be met for the project's success, were not deeply analyzed (Porter, Allen and Thomson 1991).

The project started with many problems. A squatter problem appeared as a result of Giriama people coming from the Mombasa area and settling around the project area. This illegal settlement was a major threat to improving the land and making it more productive. The cultivation system that Giriama used was based on bush fallowing. After a long period of land lying fallow, Giriama cut down trees that had grown during the fallow period and burnt their branches and leaves, which released phosphorus, nitrogen, magnesium and potassium with an effect in the short term. But in the long run, this type of cultivation caused decline of soil nutrients, deterioration of land conditions, increase of weeds and plant pests and diseases. Consequently, the crop yields sharply decreased. It was very difficult to resettle Giriama in another area away from the project. They would find themselves landless. Drought and lack of sufficient water were other serious problems preventing the project from becoming productive. This was because of limited skills of Kenyan drillers and equipment not suitable to the search for groundwater. There was no package of: enough water, better crop varieties, fertilizer inputs, and pesticides and insecticides. Even though these were available, people could not afford them. The problem of using tractors was left unsolved. It was difficult to use machinery because the tree stumps left in the ground as a result of the practice of Giriama people were not removed. The removal of the tree stumps by tractors would expose the soils to the hazards of erosion while a shortage of local labor was a further impediment to dealing with this issue (Porter et al., 1991).

The project proceeded to the phase of implementation while these problems were not solved. The Kenyan government and the Australian government, which was represented by the Australian International Development Assistance Bureau (AIDAB) were aware of the situation, particularly the shortage of water and labor. However, AIDAB reassured involved parties that things would go well. Three years was the time spent on the project. The Kenyan government wanted to slow down the rate of general development of the project but the interests of Australia in Kenya made it difficult. With three years spent and a huge investment in the project,

postponement or entire withdrawal of the Australian government from the project would be translated into ‘administrative failure’ (Porter et al., 1991).

These examples indicate that where the participatory development approach was effectively used, local people (Indians) were actively involved in their own projects and came to solve their problems with success. But in communities such as those in Lesotho and Kenya where the approach was not fully integrated into the projects, the result was that projects failed to solve the problem of rural poverty, because from the very beginning people lacked a sense of project ownership and there was no true cooperation between all key stakeholders, especially rural communities that were the major beneficiaries. This resulted from the fact that these projects were not planned and implemented from a systemic perspective. Thus, they were unable to cope with complex environments and use effective participatory development, which would have played a key role for their sustainability.

### **3.3.2 Gender mainstreaming in projects**

As Frimpong (2003:224) indicates, development projects are generally designed to promote local economic growth, create new jobs and enhance people’s livelihood. In most rural communities, women are actively involved in family life such as the up-bringing of children. Experience shows that most projects do not give particular attention to gender considerations and this usually results in women being marginalized in projects. Quoting Provincial Government (2003), Frimpong (2003:245) found that women play an important role in economic and social life. However, most of them remain vulnerable and are affected by unemployment, poverty, violence against women and children, discrimination against women, lack of access to resources and infrastructures and lack of skills and education. Apart from ethical considerations, which condemn abuse, exploitation and oppression based on gender, there is a need for mainstreaming of gender issues in projects with the focus on women’s empowerment and active involvement during the project life cycle (conceptualization, planning, execution and termination). Hulse (2007) emphasizes that for a long time, women have not been well integrated in social and economic development. However, it has been demonstrated that women are more effective and prudent in the managing of business, money, and households than men. Sustainable development has to overcome this challenge.

In Andhra Pradesh (an Indian state), poor and marginalized women were united in a self-help group to enhance their livelihood. They collected Pongamia seeds from which they extracted oil that was used as fuel with a low carbon emission rate. These women sell the oil for 30 rupees (about US \$ 0.62) a liter. The by-product is used as a fertilizer in the production of crops because it is high in plant nutrients. These achievements have been reached because the women gained knowledge from on-farm experiments with agricultural researchers. This innovation helped women and men to stay in their village. They no longer leave their place to look for jobs (Vernooy, 2010).

This example of participatory development demonstrates how powerfully women can influence social, economic and environmental development. They are important productive stakeholders. Being aware of their problems of poverty and united together these Indian women solved the unemployment question and increased the incomes in their community at large and in their families in particular. They improved their living conditions. They also contributed to increasing energy in their region with little environmental impact and they injected valuable materials (fertilizers) into the national economy, particularly in the agricultural sector.

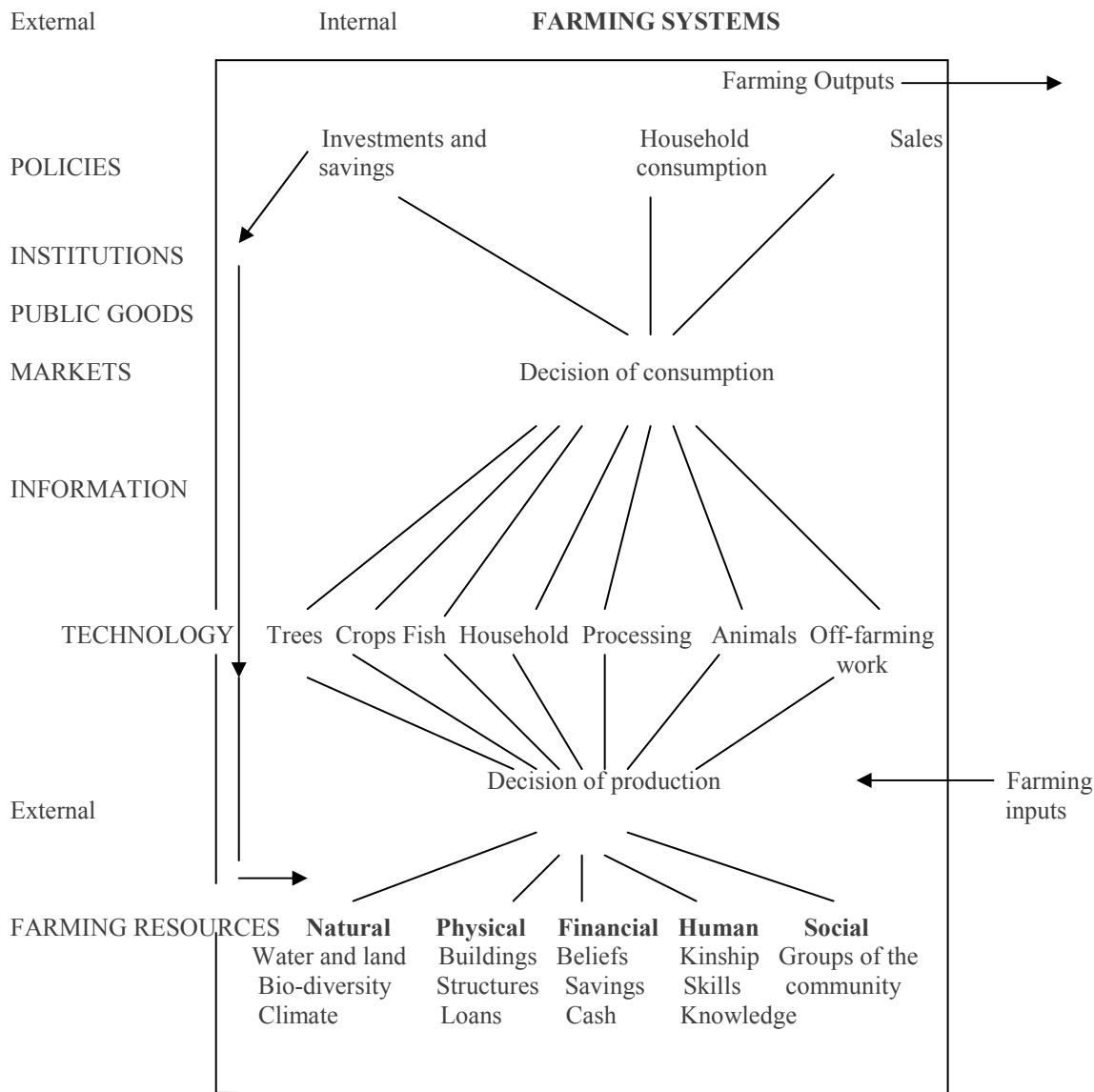
### **3.3.3 Farming systems**

Project management systems need new ways to strategically view, question, and analyze the needs of a project for alternative technical (hard) and non-technical (soft) solutions. The first pre-requisite for a successful project management is an aptitude to analyze the whole project, instead of its individual parts (Frimpong, 2003:10). Farming systems are useful to cope with complex situations in the sector of agriculture. Dixon et al. (2001) quoted in Izamuhaye (2008), found that farming systems combine multiple disciplines in analyzing production and its relationships to the key socio-economic and biophysical factors. The analysis scope determines the type of farming system, which can involve a small number or many household units. The system transforms agricultural inputs into outputs and undergoes a process of adapting farming techniques and crop types to the social, political, economic and natural environment. During this phase of transformation and adaptation, although farms produce almost under similar environmental conditions, they tend to behave and be structured differently, because each farm has its own goals and decisions, activities, boundaries, and internal and external relations, and each is largely influenced by external environmental factors that include policies, institutions, markets and information networks. Interrelated farming determinants have been identified

(Figure 3-2), through which the evolution, performance and characteristics of farming systems are expected to be considerably affected.

**Figure 3-2: Illustration of farming systems**

### FACTORS



Source: Dixon, Gullier and Gibbon (2001).

Figure 3-2 represents schematically the interrelationship of major factors of farming systems. Some of these determinants are internal, others external. The primary external factors that have influence on the development of farming systems include policies, institutions, public goods, markets, information technology and resources. Available markets and market prices influence

farmers' decisions on enterprise patterns, purchases of farming materials and the sales timing. In rural areas, availability of economic and social infrastructure determines the costs of transport and the presence of services for the benefit of households (animal and human health). In the same way, information and educational services influence strategies and decisions of households. Natural resources and technologies that determine the type of production and processing are largely internal factors, decided upon within the farming system boundary. Regarding the biophysical factors, these appear to define a group of potential farming systems, while the economic and social factors establish the real farming system that can be examined at a given time. Interaction of population, climate and natural resources determine the physical basis for farming systems (Dixon et al., 2001). Normally during early development phases, increased population expands in farm land, and in many cases this situation results in conflicts about water resources between different land users. When most of an area of good quality land is exploited, additional increased population will lead to an intensification of farming systems. As woodlands and forests are attacked, biodiversity is threatened and growing tension arises between conservation goals and development (Dixon et al., 2001).

For this reason, a sustainable agricultural system manages resources in such a way that people's needs are satisfied without compromising future generations' needs (Hulse, 2007), and that the lasting benefit of the project is guaranteed by balancing social, economic and environmental benefits (Frimpon (2003:227). As Hulse (1995) observes, sustainable agriculture generates agricultural products that are adequate and acceptable in respect of quality as well as quantity and that maintain environments, favorable to human beings and other organisms. It prevents surface and ground water pollution and protects animal rights and wild life. It prevents urban spread, activities unfavorable for agricultural production, despoilment of fertile land and degradation by erosion. It creates and maintains rural infrastructures critical to agricultural production and marketing. It promotes nutrient recycling, ensures long-term conservation over short-term exploitation and protects natural ecosystems. Swaminathan (2001) adds that sustainable agriculture protects crops from insects, other pests, pathogens and competing weeds. Post-harvest management is important for sustainable agriculture. In fact, uniformity, appearance and post-harvest stability during storage and transportation have to be ascertained because they are important for processing industries and consumers.

Some crops are more resistant to certain diseases and more adaptable to specific soil types and climatic conditions (dry or rainy seasons, winds, etc) than other crops. That is why an analysis of physical conditions for an agricultural project from a systemic point of view is very important as it helps to determine the suitability of soil and weather conditions for specific crops. In addition to this, the analysis is useful to determine appropriate resources, activities, stakeholders, the project budget and external factors that might adversely affect the project. Negligence of this analysis leads to poor planning and implementation. In the worst case, a project may fail.

For example, UNDP (1993) found that Kigoma Integrated Rural Development Project (in Tanzania) failed for many reasons. The project was planned and implemented for rural development without an appropriate feasibility study and investment analysis and without thorough knowledge of local conditions. It paid too little attention to institutional capacity from the beginning. In addition, little attention was given to the different development periods of the project components and to the demand of resources, including the potential availability of local resources. The project was inflexible and did not adjust its activities on the basis of experimentation because in the planning phase no provision was made for potential amendment.

The recent findings from research conducted on the use of farming systems and extensive agriculture indicate that that agriculture based on farming systems is more productive than extensive agriculture and will lead to an increase in the production of crops, while conserving ecological and economic resources of farmers. The most remarkable increases attributable to farming systems were found in Asia, Latin America and the Middle East. However, little benefit from farming systems was found in Sub-Saharan Africa where most increases resulted from expansion of land under cultivation (Zandstra et al., 1981 quoted in Hulse, 2007).

The use of the systems approach can help to identify internal and external influences that negatively or positively affect projects. The interconnectedness of people and things can be an opportunity to determine and establish relationships among the project stakeholders which should create an atmosphere of true collaboration and adequate communication. It is in such a climate that the approach integrates all stakeholders regardless of economic, social, racial, ethnical, educational, and gender considerations, and makes them actively participate in the project throughout its existence, while settling conflicts that arise during the project implementation.

The Kenyan agricultural project mentioned above is a typical example of the problem of involvement. The lack of active participation, especially of farmers who were amongst the main beneficiaries, could basically be attributed to an absence of a systems approach in the project planning and implementation. The project failed at the beginning because physical, social, economic and environmental factors were neglected. The planners had already the pre- and misconceived idea that things which had worked successfully in a specific geographic area could work equally well, and in the same way, elsewhere. As a result, the project had to cope with a lack of resources, inadequate collaboration and communication. Conflicts arose, some of which remained unsettled.

As mentioned above, a participatory development approach, gender consideration and systems thinking (particularly farming systems) that are lacking or that are not well integrated in the management of projects, especially agricultural projects, can be factors that contribute to project failures. But there are other specific factors that may lead to failure. The following sub-section discusses some specific causes of failure in agricultural development projects.

### **3.3.4 Specific causes of agricultural development project failures**

In Africa, development projects have failed for a great variety of reasons. Launonen and Ojanpera (1986) state that some African agricultural projects, particularly those that adopted integrated approaches, failed because their initiators had no experience in dealing with technical problems and implemented plans without considering changes of behavior and collaboration with other sectors. Collaboration would be a key factor for success. In its review of 1988, the World Bank (1992) confirms that a number of Sub-Saharan rural projects failed mostly because the issues of land tenure were overlooked at the beginning. These issues, whenever they were not properly addressed, resulted in unsuitable project design and technologies. Blackwell et al. (1992) attribute the failure of development projects to the lack of a full understanding of problems to be solved, while priorities were not identified. This situation often resulted in unsuccessful projects.

Kalonge (1995) found that physical elements were the important determinants for the success or failure of an agricultural project. However, project planners do not put efforts into understanding the implications of soils, climate, topography and temperature. El-Ashry (1992) indicates that various projects failed because of unreliable rainfall patterns. Kalonge (1995) found that

agricultural projects failed because of inadequate data, particularly information on topography, water, existing land use, soils and patterns of cropping. In many cases, maps were not reliable and not conducive to the thorough planning and execution of agricultural projects. As Blackwell et al. (1992) state, the failure of ZAMCAN Wheat Project, a Zambian project implemented in Kasama and financed by the World Bank was attributed to the lack of project planning taking the environmental considerations into account. Soil scientists were not consulted in assessing the physical environment, especially the soils.

The root of the failure of the Thabana-Morena Integrated Agricultural Project, implemented in Lesotho and financed by the UNDP (United Nations Development Program), was found to lie in its design, specifically in its concentration of wrong objectives. The project was deliberately chosen and implemented in an area that was socially and physically difficult (UNDP, 1993). The Bura Irrigation Scheme project, a Kenyan project sponsored by the World Bank failed because there was no homogeneity of climatic conditions and soils in the area of the project's implementation (Harrison, 1989 and Tidrick, 1979). Sengu River Agricultural Project, implemented in Lesotho and sponsored by the Food and Agriculture Organization (FAO), failed because the weather was unpredictable during the project's existence. In consequence, crop patterns were not appropriate (Swallow and Borris, 1988). El-Zamiyah Pond Project (Egypt) funded by the Food and Agriculture Organization of the United Nations failed because its budget of US\$ 50 million was spent on creating deep water fish ponds which were not successful and collapsed because soil conditions were not right (Hancock, 1989 quoted in Kalonge, 1995). The failure of the Fish Ponds projects, implemented at Kasinthula in Malawi and financed by FAO, was attributed to the inappropriate physical location of the projects. They were built but in a region that accommodated many birds, which ate up the fish before the fishermen harvested them (Hancock, 1989 quoted in Kalonge, 1995).

These examples demonstrate that an inadequate analysis of the physical environment of agricultural projects leads to poor planning and implementation. That is why projects failed. A thorough analysis of physical conditions is extremely important particularly for agricultural projects which are susceptible to climatic conditions, diseases and insects.

In sections 2.2 and 2.3, it was revealed that project failures are generally attributed to internal factors in relation to project management principles such as leadership, risk management and systems thinking. Some of these factors were neglected or inadequately applied. In the public



sector, some LED projects fail because of inefficient governments. In the area of agriculture, factors contributing to failures are connected with the external environment, particularly the physical environment (land, soil, water, weather, etc). But other environmental factors can also influence the project, such as culture, foreign direct investment, global economy, etc. These factors, when well understood and integrated in management systems, can help businesses and projects to avoid failures or minimize the rate of failures. The following section deals with these issues.

### **3.4 OTHER EXTERNAL ENVIRONMENTAL FACTORS LEADING TO PROJECT FAILURES**

#### **3.4.1 Introduction**

The environment is different from one country to another, from one continent to another. What opportunities an environment offers a project, and what threats it poses, depends on where the project is implemented. For instance, as Hough et al. (2003) state, in developed countries such as the United States, the United Kingdom, Germany, France and Japan, incomes are generally high because of political stability, a highly educated and literate population, and high standards of living. High levels of industrialization, entrepreneurial activity, information technology, and active involvement in international business contribute to the increase of incomes. Well-developed infrastructures such as financial institutions and monetary networks, transportation, communication and social systems such as education and healthcare also are critical factors contributing to high incomes in these countries. Although the environment may pose its own threats, it offers many opportunities for business and projects. Therefore, Merwe (2002) suggests modern business has to match its activities to its organizational environment.

#### **3.4.2 Project management environment in developing countries**

As Keeling (2000:61) maintained, in developing countries projects fail or are abandoned because of external circumstances that are beyond control of the project management. For instance, projects implemented in politically unstable areas are particularly exposed to changes in government policy and even to physical insecurity, which negatively affects the success chances of a business or project. Other critical factors pointing to success or failure include culture, foreign direct investments (FDI) and globalization.

### **3.4.2.1 Culture and business competitive advantage**

As Muriithi and Crawford (2003) indicate, social-cultural factors such as shared values and norms, beliefs and attitudes towards organizations and work, employees and managers are significant factors influencing the success rate of a project or business. The findings from a study conducted by Dadfar and Gustavsson (1993) quoted in Zeffane and Rugimbana (1995) indicate that culture can have a significant impact on a project from the early stages of its design and planning. Keeling (2000: 59-60) observes that most overseas projects get into difficulty because project contractors and expatriate managers do not understand local attitudes towards time management and local attitudes in general. The cultural element is one of the leading factors that can complicate the project implementation if it is not given particular attention in management processes throughout the project's life-cycle.

Mazui (1980) quoted in Muriithi and Crawford (2003) found that if people in the workplace and their families are satisfied, and have a positive attitude towards their managers, they can be expected to increase their productivity. Gender also was estimated to be a significant factor in creating more successful businesses, especially in the sectors of farming and small business. However, their role and active participation are not recognized and appreciated by a number of managers. Zeffane and Rugimbana (1995) observe that the concept of kinship in business is neglected in developing countries, while some successful businesses are family-based. In the Republic of Korea, family-based businesses account for 46.2% of businesses. The developing countries are confronted with increasing global competition and with the computerization phenomenon. However, they lack a strategy of human resource development, which consists of establishing management training institutions and adequate employee training to fit in with the real needs of social and economic development.

Furthermore, the findings of a study carried out in Nigeria by Dlakwa (1990) and quoted in Zeffane and Rugimbana (1995) reveal that many developing countries are still characterized by a high level of bureaucracy, one of the main reasons of budget overspending and delays in construction projects. Corruption still occurs, for instance in the tax collection process, offers of foreign exchange and employment contracts are made. Such cases violate the principles of human rights, justice and trust, and hinder the economic development in the countries concerned. Besides problems of bureaucracy and ethics, Zeffane and Rugimbana (1995) concluded that the culture has contributed to an increase in the number of multinational companies that have

established businesses in Africa. According to Hough et al. (2003), the cultural values, beliefs and norms in a country have an important impact on business performance in the areas of costs, risks and profits. The firm that manages costs and risks resulting from cultural differences better than its rivals, has a stronger position in the competitive global economy. Countries with sound educational systems, an adequate workforce, absence of disruptive labour practices, an ethic of hard work, and free market orientation are most likely to be preferred destinations for international business.

The element of culture helps in enhancing human relations in local organizations (Jackson, 2003 quoted in Baldwin, 2006) and improves partnership relationships in and with local and international business communities. Victor, et al. (2004) state that, because of a lack of joint ownership with local investors, foreign investors run great risks such as assets expropriation, macroeconomic changes like exchange rate fluctuations, and currency devaluation. But the welcoming attitude of domestic governments towards foreign investors is regarded as a great leverage, in that they are able to find project niches not yet covered, for instance, electricity generation, transmission lines and distributions networks.

Projects designed and implemented in complex and multi-faceted environments benefit from the culture of collaboration between different stakeholders aimed at promoting success (Crawford et al., 2003 and Russell-Hodge, 1995). By means of a joint venture, client and contractor work together and share risks and benefits associated with projects (Burke, 2001:241). Grazia and Santangelo (2001), Nakamura (2005) and Moran (2000) observe that partnership is a great opportunity for technology transfer through Information and Communication Technology (ICT), which contributes to the enhancing of management and to an increase in the number of businesses at local and international levels.

Culture can have significant positive impacts on the state economy and on individual projects' income and costs, depending on how it is valued and integrated in projects. Furthermore, the national and organizational culture evolves and changes over time and from one country to another. Therefore, because of constantly environmental changes, culture requires being continually assessed and integrated in the project management processes to meet new and real needs of the project stakeholders.

### **3.4.2.2 Constraints of foreign direct investments (FDI) in developing countries**

Habib and Zurawicki (2001) assert that FDI helps developing countries to develop and improve the quality of business and that it contributes to the growth of international business. For instance, the flows of FDI into developing countries have been growing at the rate of over 20% per annum. However, Javed (1998) found that there are obstacles with the failure of banks in developing countries, one of the major barriers for FDI. The failure of banks is associated with the fact that banks play an important role in financing projects in the public sector which get a large proportion of their funds, destined for development objectives (building social and economic infrastructure), from the banks. But state-owned enterprises are generally blamed for being inefficient and less productive than those in the private sector because of poor planning, management and leadership. This leads to a decrease in the economic and financial sustainability of the banking sector and other economic sectors, and to a weakening position of projects that need financial support from banks. Javed (1998) adds that this situation contributes to bad banking debt services, increase of receivable accounts of loans and ultimately to bad receivable accounts. The evidence of political manipulation in the banking sector affects bank liquidity and the recovery of losses. The phenomenon of globalization also adversely affects the efficiency of state and private enterprises.

Another crucial issue is the inadequacy of economic and social infrastructures (Brown, Beyeler and Barton, 2004) in relation to electric power, information and communication technology, transportation, water, fossil fuels, emergency services, agriculture, operational financial institutions, well maintained road networks (Victor, et al., 2004 and Brown, Beyeler and Barton, 2004), as well as in the fields of health and education, every one of which contributes to projects and business displaying increased efficiency and productivity, or a lack thereof (Chulanova, 2007). It has been demonstrated that, for example, maintaining roads in a good condition leads to an important increase in new jobs and incomes as good roads create new opportunities for development in rural zones by opening up markets and increasing diversified business and social activities, as well as promoting export production in that area (Asian Development Bank Institute, 2007). In Singapore, infrastructures such as housing, land, public service, social and political culture, and labour have increasingly been attracting mobile factors such as capital and information. This has dramatically contributed to a gradual increase of economic growth (Phang, 200b quoted in Phang, 2003). It is in these circumstances that the huge airport infrastructure was built, which has made Singapore popular with international airline companies (Phang, 2003).

In most developing countries, however, central and provincial governments, often regarded as inefficient and ineffective (Chulanova, 2007), are another form of barriers, hindering the flow of FDI and successful business. As an example, Biggs and Shah (2006) state that Small and Medium Enterprises (SMEs) in Sub-Saharan Africa are characterized by market failure (Kim, Knotts and Jones, 2008) and by a lack of formal institutions that protect their rights and contracts, while these enterprises are established faster than large enterprises (Jovanovic, 1982). Habib and Zurawicki (2001) add that the FDI is facing the problem of corruption, which is the abuse of funds by powers in government and by government officials serving their own interests. This is manifested as bribes, government inefficiency and bureaucracy, a lack of transparency, instability of economic policies, and a weakness in the upholding of property rights. Victor, et al. (2004) confirm this situation, saying that host governments often fail to create a favourable investment climate with regard to the freedom of choosing appropriate technologies, joint investment (private local and foreign investment) and sound legal and regulatory structures that protect contracts against corruption of any kind. In these countries, the exercise of citizen rights is still affected by economic and socio-political unrest (Hough et al., 2003), poor management, insufficient material and human resources (Biggs and Shah, 2006) and poorer investor protections because of inadequate judicial systems, archaic laws and procedures, poor quality of law enforcement and the character of legal rules which generally make capital markets narrower and smaller (La Porta et al., 1997 and Hough et al., 2003).

This is in conformity with the recent findings from a study undertaken in Nigeria by Sonuga et al. (2002) into water and irrigation projects. The findings indicate that barriers were experienced in many different ways through the inappropriateness of contract conditions, insufficient funds, government policies and corruption. In fact, in some cases government policies have been arbitrarily changed, contractors have not paid adequate attention to specific aspects of the execution of works, and stakeholder participation was found to be inappropriate from the early steps of the project onwards. As a result of their corruptive tendencies, government officials frequently make unnecessary demands on projects and waste resources. These problems interfered with the smooth application of standard project management techniques, namely project planning, monitoring, risk management, cost management, and so forth. In each case, successful project completion became unachievable.

In this situation, Lu and Beamish (2006) found that the international joint venture as a strategic alliance is the only good way of allowing the flow of FDI and international expansion of SMEs, helping them to cope with global competition (Ozorhon et al, 2007). Contracting for project management becomes a basic principle for this form of international joint venture because few project clients have the essential in-house skills resources to manage a project of any realistic size. That is why Woodward (2004) holds that the guidance and services of external consultants is needed through the entire project cycle phases, that is, initiating, planning, implementation and commissioning.

It is true that partnership relations through joint venture can help solve some of abovementioned problems. However, a great number of people in developing countries are not sufficiently empowered to equally share in the joint venture benefits with their partners from developed countries. In fact, most of them are illiterate, lack management skills and are not able to use ICT facilities (computers and internet usage), which are the important channel of the flow of information and technology transfer, and powerful tools of resource management. Although the lack of infrastructures is a barrier to the flow of FDI, the political unrest that characterizes some of developing countries makes potential investors reluctant to invest because of the risk of investment loss. True partnership between countries, private and public sectors, academic and non-academic institutions, government and non-government organizations and civil society can help to mitigate this serious problem of security, which is a great obstacle to social and economic development.

#### **3.4.2.3 The global economy in developing countries**

According to Mostert (2003), besides the inadequate legal, financial, economic and social infrastructures that make developing countries unable to guide industrial development, the phenomenon of globalization also constitutes a major obstacle to development in developing countries. It is exercising strong economic pressure in these countries at both local and national levels leading to the removal of barriers judged unnecessary to international business activities. The rationale of globalization consists of breaking down borders between countries, governments, communities and financial markets for the benefit of the free flow of capital and mobility of labour in an integrated world economy. UNRIS (1995) quoted in Muchie (2000), characterizes globalization as a transformative route associated with the spread of liberal democracy, the increased transnational linkages of the world economy, the extension of the

market, flexibility of production activities and market, the spread of technological change, the spread of consumerism and the communication revolution. Cleland and Gareis (1995) state that globalization is supposed to promote resource sharing, concentrate on competitive advantages and new levels of cooperation. In this way, from an expanding group of developing and developed countries, the significant interlinking of firms was regarded as a major factor of the global economy by the end of the 20<sup>th</sup> Century. Oxley (1999) asserts that the aim of globalization is to form and increase regional integration, joint ventures and international alliances, leverage for intellectual property and pooling resources.

However, Meyer-Stamer (2005) observes that small business enterprises become less competitive in global markets as they suffer from a lack of managerial capacity, lack of technology development, low employee skills, absence of joint research and development, lack of capital, and poor communication between government and private sector because of mutual mistrust. Ulrich (1998) argues that the global economy creates obstacles to exercising social, political and economic rights by means of limiting the free market and creating a threatening environment and victims of this tendency are mostly the less developed and developing countries.

Mostert (2003), highlights that the global market economy is still largely under the control of three blocks namely, America, Europe and Japan. For example, between 1980 and 1990, they accounted for 43% of the global capital and for 56% of all global transactions (Hak-Min, 1994 quoted in Mostert, 2003). Supporting this idea, Mostert (2003) writes that this new economic system has had negative impacts on unemployment, distribution of income, education, health, management systems and the sovereignty of developing countries including those in Africa. This situation is attributable to their low level of participation in all processes of the globalization system because it is basically the International Monetary Fund and World Trade Organisation that intervene to stabilize the world economy and to provide global rules for global trade. But the IMF (2000:8) quoting Mostert (2003) does not accept the negative impact of globalization on developing countries because its intervention is merely aimed to regulate the monetary and fiscal systems in those countries in order to make their domestic economies more efficient and competitive in the global economy arena.

Although developed countries are viewed as threatening the chances of developing countries to benefit from globalization, developing countries are simply not competitive in the global market because their products are very expensive. The production costs in these countries are high because of expensive electricity used in manufacturing industries and the lack of updated technology (labor skills, raw material and production equipment). As a result, products or services are of poor quality and expensive. Furthermore, political and economic relations among developing countries are not good enough to build and maintain strong partnership relations among themselves and with their counterpart developed countries in the field of business.

The preceding sections show that external factors of the project environment constitute the main threats to projects and in many cases they indeed cause projects to fail, depending on how economic role players such as governments, financial institutions (World Bank, IMF and banks), investors and human resources behave in the economy and how culture, globalization, technology and partnership are used. But some projects have survived and were successful. The following section gives two examples of projects of which one failed and the other succeeded and explains the reasons for these outcomes.

### **3.4.3 Project management environment in Rwanda**

In view of the economic and socio-political environment in which they operate, the success of projects implemented in developing countries, especially in Africa, should be evaluated on the bases of unexpected aspects of their environment (Diallo and Thuillier, 2004). Like other less developed and developing nations, Rwanda is challenged by an unfavourable environment, limiting the chances for success of business and projects, while besides the systems thinking approach is lacking in management processes.

#### **3.4.3.1 Historical background of Rwanda**

Rwanda is a hilly, small, mountainous and landlocked country with a rich diversity of natural resources in the form of many lakes, rivers, wetlands and a wide variety of flora and animal species. It is located in Central Africa. Rwanda is bordered on the west by the Democratic Republic of Congo, on the east by Tanzania, on the south by Burundi and on the north by Uganda. It is referred to as a country of a thousand hills because of its numerous hills. It covers a total surface area of 26, 338 km<sup>2</sup> of which 1,390 km<sup>2</sup> is water and 24,948 km<sup>2</sup> land. The



population is nearly 8.5 million and over 60% of the population lives below the poverty line (Ministry of Finance and Economic Planning, 2007).

In Rwanda, annual exports are estimated to be \$18 per capita compared to an average of \$145 in the countries of Sub-Saharan Africa (Coulibaly, Ezemenari and Duffy, 2008; Diop, Brenton and Asarkaya, 2005; World Bank, 2004). The low level of Rwandan exports can be explained by high transport costs because the country is landlocked. (The World Bank Group, 2007).

According to the Ministry of Finance and Economic Planning (2007), 90% of the Rwandan population lives in rural areas. Most households rely on farming which is labour intensive with the use of machetes and hoes to plant and harvest because animal traction is non-existent. On average, the plots of farm land amount to 0.89 hectares per household. In terms of food crop production, women's labour is particularly important. Men's labour is particularly evident in animal husbandry and cash crop production. The main food staples are bananas, potatoes, beans and sweet potatoes. The cash crops are essentially coffee and tea, but potatoes and bananas are also sold for cash. For many crops, the suitable growing conditions are situated between an altitude of 1500 and 1700 meters. It is in these areas that the highest population densities are found. On average, household income is made up of subsistence crop production (60%) and sales of beer, crops, off-farm activities, and livestock (40%). In the late 1980s, the economy of Rwanda declined due to poor soils, lack of land and livestock, low prices of coffee and tea, the problem of unsettled refugees, unfavourable weather conditions, growing corruption, population growth and crop decline. The Foreign Investment Advisory Service (2006) states, that some cases of corruption were reported particularly in the area of tax collection. Although Rwanda is judged to be less corrupt than other countries in the region of the Great Lakes and East Africa, corruption is one of the economy's greatest enemies.

Southern Rwanda has been particularly affected by crop failure in 1989 and by an eruption of civil war in the northern region of Rwanda in October 1990 (Akresh et al., 2007; Diop et al., 2005). Poverty in the southern province has not changed significantly. It is still the poorest province (Ministry of Finance and Economic Planning, 2007). The poverty of the area is especially evident in the poor condition of health, shelter, education, roads and communication infrastructures.

From an agricultural survey conducted by MINAGRI among 300 families in a great number of Gikongoro districts, it became apparent that 25% of the surveyed families were poor. Families headed by women were particularly affected by poverty (Gascon, 1992 quoted in Akresh et al., 2007). In some districts of Butare province (Runyinya, Nyakizu) and Gikongoro (Karama, Nyamagabe) hunger and starvation, deaths and the withdrawal of children from school were reported (Bureau Social Urbain-Caritas in Kigali (1990 quoted in Akresh et al., 2007).

The poverty of the country is also explained by its history, marked by outbreaks of ethnic violence in 1959, 1962, 1973-1974, an outbreak civil war in 1990 and the genocide of 1994. The genocide alone left nearly 1 million people dead between April and July 1994, and about 2 million people were driven into exile, and thousands were physically and mentally handicapped (Ministry of Finance and Economic Planning, 2007).

The situation increased the vulnerability of Rwandans, particularly those who were orphaned during the genocide, widows, internally displaced and resettled persons, recently returned refugees, and the families of nearly 120,000 people detained in prisons on suspicion of crimes of genocide. In the year 2000 it was estimated that children aged between 7-14 years were orphans, in the sense that they had lost at least one parent. Those killed, included technically and professionally skilled people, such as teachers, doctors and nurses. Although the majority of the refugees have returned, some of those who are educated and qualified remained in exile. After the genocide, refugees from the ethnic violence in the years 1959-1974, or their descendants, returned to Rwanda with new cultures and skills. Resulting social problems include security, lack of trust or sincerity, health care, and poverty (Monday, 2004).

The use of the systemic approach helps to better understand the context of business and project management in Rwanda, taking into consideration both hard and soft environmental factors.

#### **3.4.3.2 Cultural, social, economic, demographic and climatic environment**

Culture is perceived as one of the driving forces for success or failure of organizations. In Rwanda, mutual assistance in the post-genocide period has led to significant positive changes in social and economic life at the individual, organizational, local and national levels, in both the private and the public sector (Alexander, 2004, quoted in Baldwin, 2006, and Musoni, 2003, quoted in Baldwin, 2006). In fact, gender issues are being addressed. Although it has been observed that women are often the sole care-providers for the sick, elderly and young, and that

their role in the economic, social, and political sectors has not been significant, yet their input in the processes of peace-building, reconciliation activities and economic recovery has been significant, especially as they have often been victims of instability and criminal acts of many kinds committed by men (Andeerlini, 2006). Gender-equality plays an important role in the education, health and economy sectors. Educated women are perceived as an important part of a productive workforce and earn higher incomes. They are no longer condemned to spend hours a day fetching water since they participate more productively in society (UNDP, 2003; Musoni and Soumaré, 2007). It is in this context that FAO and World Food Program (WFP) give financial support to the association of women who are living in the southern region of Rwanda and who are involved in potato cultivation in an attempt to improve their economic and health conditions. The support is extended to the education sector where children from poor families are given food and tuition fees (United Nations, 2006).

The Rwandan economy is growing at an annual average of 7.4% in GDP (Gross Domestic Product) and has a relatively stable inflation rate of 10% since 1997 (The World Bank Group, 2007), mainly because of the political stability and the Rwandan culture of gender promotion, mutual assistance, hard work and international cooperation. This culture has contributed to a favourable economic environment for business activities through the opening of the market economy (Coulibaly et al., 2008), an efficient regulatory framework and a revised investment code (Ministry of Finance and Economic Planning, 2007 and World Bank, 2006), a decline in government borrowing from the banking sector (World Bank, 2006), the fight against corruption in tax collection (Foreign Investment Advisory Service, 2006), and public external debt cancellation (Wikipedia, 2007) for improved social and economic performances in the fields of health, education and clean water (Stilwell and Hofer, 2006 and World Bank, 2005).

As the World Bank Group (2007) states, the improvement of health conditions has led to a decrease in disease and death, and an increase in population fertility and growth. However, Rwanda, as a landlocked and small country, is facing the threat of overpopulation with more than 9 million inhabitants and a high population density of 337 people per km<sup>2</sup>. The overpopulation, coupled with the insufficiency of capital infrastructures and natural resources, contributes to increasing poverty particularly in rural areas. According to Watkins (2007) and World Bank (2006), in developing countries, especially in Africa, uncertain patterns of temperature and rainfall distribution, and extreme weather conditions, such as an increase in droughts and tropical storms have a dramatic impact on human lives and natural resources. But

the problem of overpopulation contributes seriously to the depletion of natural resources and the changes in weather. These changes constitute a great threat to human development and weaken the efforts of the international community to reduce intense poverty.

This is in accordance with Cooper et al. (2008) who have predicted an imminent global water crisis because of increasing population growth and climate change and who expect that this situation will affect most of the countries in Africa by 2025. For example, in Rwanda, the World Bank (2006) states, the year 2004 was marked by high inflation fluctuations, which are explained mainly by increased food prices due to a low harvest as a result of poor weather conditions. In addition, the Ministry of Agriculture and Animal Resources (2008) estimated that Rwanda is losing 1.4 million tons of soil every year, which means that there is an annual loss of capacity to produce food for 40,000 people, because of the depletion of natural resources (natural forests, water, arable and pasture land) as a result of poverty, especially of rural people. The lack of water conservation measures by farmers and the lack of investment in soil, along with high population densities (due to an improvement of health conditions) have led the rural population to cultivate hillsides and hilly landscapes which may explain the high rate of soil erosion. Another factor has been deforestation, also due to generalized severe poverty of local people, land scarcity, low investment in the forestry sector, weak institutional frameworks and the civil war of 1990.

As Rwandan culture is based on mutual assistance, gender promotion, hard work and international cooperation, it has helped to attain remarkable improvements in education and in health conditions and to bring about satisfactory achievements in the economic sector. The overall result was a better life but with an increased population growth rate which led to a depletion of natural resources. The situation indicates that the possibilities for a sustainable development of Rwanda lie in the balancing of economic, social and environmental development, because partly solving the problems will only give rise to new ones and the probability of projects implemented in such circumstances failing would increase. Therefore problems and solutions need to be viewed in a systemic way.

### **3.4.3.3 Rwandan decentralized government – social and economic infrastructures**

Violent conflict, lack of coordination, weak policies and insufficient resources continue to delay progress, especially in Africa (Watkins, 2007) which also suffers from a lack of strong and fair leadership, democratically decentralized institutions and, in general, good governance. Rwanda is overcoming this problem by adopting a leadership based on a strategy of decentralization of public institutions (World Bank, 2008 and Fukuda-Parr, 2002) to promote good governance with the emphasis on collective action, bottom-up decision making and local autonomy. The good governance principles in Rwanda refer to the areas of defence, peace and security, unity and reconciliation, democratization, transparency and accountability, decentralization, gacaca jurisdiction (traditional jurisdiction), the criminal justice system and human rights, civil society (World Bank, 2006) and the building of parliamentary capacity through the use of new technologies (Musoni, 2006; United Nations, 2006; United Nations, 2007; UNDP, 2003).

The purpose of the strategy is to mobilize people and get them to participate in national decisions by identifying and solving their own problems (World Bank, 2006) and to protect their rights from unaccountable and arbitrary decisions by government and other forces (UNDP, 2003 and Monday, 2004). Economic and social rights are not merely theoretical. The economy will grow in strength as long as people are economically engaged. They work because they enjoy the fruits of their labour in the form of fair pay, health care and education for their families. The wealth that they build is the return on their hard work. If they are denied their labour's rewards, they lose motivation (UNDP, 2000, and Brown, 2005) and their productivity will diminish. The economic development of Rwanda is founded on the principles of the reconstruction of the country and its social assets, the development of human resources and an economy based on knowledge, the development of an efficient and credible nation governed by the principle of law, the upgrading of agriculture and livestock, and the development of entrepreneurship and the private sector (Musoni, 2005; Musoni, 2006; United Nations, 2006; United Nations, 2007; UNDP, 2000; UNDP, 2003).

Once the decentralized government institutions function properly, they create an ambience likely to attract external investment for starting-up and existing businesses. Partnerships between all stakeholders in the local economic development will lead to success. The World Bank Group (2007) emphasizes that it is the responsibility of the government to mobilize people around local development projects and empower local institutions and communities with skills in areas of

project management such as planning, implementation, control, finance, human and general resource management, and development.

However, according to (MINALOC, 2007), Rwanda is faced by a problem in the implementation of this strategy. Although persons allocated to local governments are academically qualified, they lack financial and technical resources as well as management tools such as manuals and procedures. They do also not have the experience needed to deal with the increasing demands from different stakeholders. A resistance to change is evident among members of central and local governments which makes the implementation of the program even more uncertain. This also hinders the process of transparency and the participation of stakeholders concerned with the program. For this strategy to work, Meyer-Stamer (2005) indicates that it requires the presence of organized economic and social infrastructures (roads, schools, communications, etc), and efficient administrations that help business to comply with regulations. It is for these purposes that the government of Rwanda received, for example in 2005 and 2006, US\$ 394 million from the World Bank and the International Development Association (Boh and Kayihura, 2007; Boh and Kayihura, 2006; Kayihura and Toure, 2006).

This section has made clear that there can be no development in a country with poor state leadership and where there are no social infrastructures (freedom, peace, security, health, education, etc), no legal infrastructure (fair laws, justice, respect of human rights, etc), no economic infrastructure (road and communication networks in a good condition, electrical power, water, etc) and no adequate financial institutions. This is understandable: sustainable development requires adequate social and economic infrastructures, which contribute to reduce the costs of projects and increase their income. When well managed, projects planned and implemented in such an environment are expected to succeed.

#### **3.4.3.4 Banking and financial constraints and agriculture**

In the banking sector, the Rwandan government, represented by the National Bank of Rwanda, has regulated the functioning of banks that operate in Rwanda and made them more efficient and effective. In this context the government of Rwanda has started privatizing banks in 2003 (Hasan and Marton, 2003). The National Bank of Rwanda has created a climate that allows banks to increase liquidity (The World Bank Group, 2007) and to inject money into the sector of micro-finance institutions. These institutions can stimulate employment in micro, small and medium-size enterprises, leading to income generation, and make productive investments benefiting

poor rural and urban population groups (UNDP, 2003). In addition, a new law exempts micro-finance enterprises from paying tax on income for a period of 5 years in order to allow them to increase micro loans (Foreign Investment Advisory Service, 2006). Micro-financial institutions achieved much in the areas of small business, education, housing and health care (Foreign Investment Advisory Service, 2006). However, the flow of bank loans to the agriculture sector accounts for only 2% while this sector dominates the national economy. As a result, rural poverty has not significantly improved, due to a lack of funding and furthermore to a lack of efficient land and water management in the agricultural sector, continued low use of inputs (fertilizers), delays in Rwanda's accession to the East Africa Community and instability in the region (Foreign Investment Advisory Service, 2006).

The production of traditional subsistence crops such as sweet potatoes, bananas and cassava is declining due to poor storage facilities, lack of use of inputs and lack of conservation methods. Promotion of the use of inputs and the provision of training for traders and producers in methods for improved handling and processing of harvests, are among the measures, envisaged to overcome challenges (World Bank, 2007). The government of Rwanda, in the meantime, is developing the manufacturing industry sector, which is principally based on agriculture. The manufacturing industry sector represents 10% of GDP. It has been observed that between 40% and 50% of manufacturing factories are engaged in the food and beverage industry. However, the manufacturing industry sector is also challenged by insufficient resources and the high costs of energy and finance, leading to high production costs (World Bank, 2007).

That the use of fertilizers by farmers remains low is the result of their lack of relevant knowledge, inadequate supplies, lack of loans, and high prices (World Bank, 2008). The laboratories of agricultural research lack the capacity to identify the research needs of agribusinesses and individual farmers. There is a lack of communication and coordination between technology users (farmers, agro-entrepreneurs) and groups involved in technology transfer (Ministry of Agriculture and Animal Resources, 2008; Watkins and Verma, 2008).

The development of agriculture requires sufficient agricultural inputs and infrastructures, and the intervention of many stakeholders, including banks. However, the banking sector fails to educate people about the use of bank loans and about key principles of the financial management of projects, cooperatives and small businesses. Most of these production units get their funding from banks so one would expect banks to make considerable efforts to follow up on projects

and businesses that they have financed, and more so because some banks fail as a result of bad repayment of loans. They should also help to empower local people economically by initiating training programs, or by providing funds to training centres willing to include such a training program in their curriculum. After all, the success of banks and other economic units is ultimately the result of their trading relations with people. Banks, by promoting financial know-how among their customers, would make a valuable contribution to a greater prevalence of effective, efficient and sustainable projects and business organizations and, in the end, national economic growth would benefit as well.

#### **3.4.3.5 The sector of non-farm business and technology**

According to the World Bank (2007), the non-farm sector is basically informal. For instance, the micro and small business sector comprises nearly 70,000 enterprises but only 1000 of these are registered as paying income tax. Dabalen et al. (2004) affirm that the non-farm sector is being developed because of its substantial benefits as compared to the agricultural sector. A growing rural labour force which can no longer be employed in the agricultural sector is absorbed in the non-farm sector and contributes to reduce the rural-urban migration. The World Bank (2007) indicates that the non-agricultural sector facilitates the transformation of the economy from a subsistence-based economy to a market oriented-economy. In 2005, the informal sector accounted for more than 42% of GDP.

However, the overall business environment of the informal sector needs to be improved, particularly in relation to the cost of doing business. Business development is constrained by low market demand and purchasing power, physical isolation, lack of access to finance, lack of market development activities, and lack of knowledge about services available to business. These are the main factors that hinder the growth of business, lead to increased business costs and prevent business organizations from quitting the informal sector (World Bank, 2007; Boh and Kayihura, 2007). As small businesses are not registered for VAT, they cannot be compensated for inputs or bid for public contracts (Foreign Investment Advisory Service, 2006). Foreign Investment Advisory Service (2006) and World Bank (2007) suggest that the informal business sector should be educated about the benefits of tax registration and of formal functioning in a competing market. FIAS (2005) asserts that the informal sector costs the country, economically and socially because businesses, operating outside of the regulated free market, direct their resources away from the official sector. The absence of standardized and



formal procedures limits their opportunities to grow: they cannot bid for government contracts or participate in donor-funded projects. They only have access to finance on the informal market and cannot take part in programs of capacity building. This situation threatens the growth of the economy as well as export opportunities. As the World Bank (2007) states, given that Rwanda is a landlocked country, the national markets are not efficiently interacting with international business. Their relations should be based on partnership linkages. These linkages help to reduce transaction and transport costs, and to introduce new technologies which make businesses more efficient, effective and competitive in the global market.

As Watkins and Verma (2008) assert, technology in Rwanda is still at a low level. For example, technologies to conserve rain water for agricultural irrigation are not developed. In the production area, in times of good harvest, surplus food (vegetables, potatoes, sweet potatoes, etc) rots because of the inadequacy or absence of technology to conserve it while a great number of people face a lack of food security. In 2006, the Government of Rwanda and the World Bank started working on a program for science, technology, and innovation (STI). The STI is aimed at enhancing opportunities for growth in rural areas and improving the lives of the rural poor by increasing skills and knowledge of people through the provision of technical education with the combined support of private sector, industry and commerce. This requires promoting a culture of innovation, knowledge creation, knowledge acquisition and knowledge transfer. There is no hope for prospering in an open trading and increasingly competitive global economy system if Rwanda does not build the appropriate STI, entrepreneurship, vocational, and technical, especially engineering, capacity so as to be able to produce more value-added goods and services.

Development of the informal sector requires not only strong and fair state leadership and the presence of adequate legal, social and economic infrastructures but also regulation of the sector itself because it is not sufficiently productive. The sustainability of Rwandan business in the global competitive economy demands that businesses become more efficient through a better quality of business management and collaborative relationships. Relationships with other organizations are opportunities for knowledge and technology transfer. For instance, in the agricultural sphere certain problems related to production, storage and markets can be solved by technology, provided they are linked together as a chain of operations and not taken separately. This can reduce the costs of production, storage and sales, make products more competitive in the global market and increase exports.

#### **3.4.3.6 Effects of the global economy on Rwanda's economy**

Although globalization is strongly supported in developed countries because of its benefits for their geographical areas, developing countries fear the process in a world that is already strongly marked by disparities of wealth and power, winners and losers. In Africa, globalization affects mostly Sub-Saharan African countries, which rely to a great extent on international borrowing and donor assistance (Muchie, 2000). In Rwanda, the growth of imports exceeds that of exports (World Bank, 2008). Because Rwanda is a landlocked country, the result is a significant rise in transport costs (The World Bank Group, 2007) which, in turn, makes export products less competitive in the international markets and import goods more expensive, leading to a decrease of purchasing power of consumers at the national level.

To deal with this situation, the government of Rwanda has built strong collaborative relationships with organizations at national and international levels. And so, after the hard times of the war of 1990 and the genocide of 1994, remarkable efforts could be made to rebuild social and judicial infrastructures in the areas of education, health, habitat, good governance, peace building, reconciliation among Rwandan people, justice, and law. These infrastructures were, and still are, considered as major pillars of economic development. Great efforts were made in road rehabilitation and construction, increase of electrical power and improvement of transportation and communication services. Therefore, Stilwell and Hofer (2006) and Foreign Investment Advisory Service (2006) indicate that, although Rwanda is classified among the poorest and the most indebted countries in the world, most of its debts were cancelled because it is managing to improve its performance in the fields of health, education, clean water, and so forth. Rwanda is now ranked as one of the best African countries in terms of improving business performance.

This is a powerful illustration that a culture, based on building and maintaining strong collaborative relationships at national and international levels, is favourable for the chances of businesses to survive and even to succeed in the global economy. In the global economy, social, economic and environmental factors are closely linked. When they are harmoniously integrated in the strategic planning of public and private institutions and the fact of their interdependence is appreciated, they become precious ingredients for the social and economic development of a nation, possibly leading to a proliferation of successful projects and businesses of any size.

### **3.4.4 Stories of some unsuccessful and successful agricultural projects in developing countries**

Tanzania and Rwanda were chosen for this study. Although they are from different economic and social contexts, and geographically located in different areas (Appendices 2 and 3), the choice was based on the same criteria. They are among the poorest nations of the world and their economies are based mainly on agriculture (Appendix 3).

#### **3.4.4.1 Tanzania**

According to World Vision (2008), Tanzania is ranked at 164 out of 177 poorest countries in the world. The social infrastructures (health and education) are poor. In fact, 90% of people, particularly those from rural areas are living within 10 km of a basic health centre. One child out eight dies before its fifth day of birth because of insufficient health care infrastructure (clinics, hospitals), lack of medicine which is generally very expensive, inadequate immunization, unclean drinking water and poor nutrition, so that the children become vulnerable to deadly diseases such as tuberculosis, cholera, dysentery and measles. In the area of education, the HIV/AIDS epidemic has reduced the number of teachers who are a cornerstone of the economic development. Besides, there are insufficient materials, desks, classrooms and books. The low number of educated people, and illness and deaths related to malaria and HIV/AIDS, contribute to the failures of projects because they reduce agricultural productivity.

Moreover, Chacha (2006) indicates that farmers have poor implementation skills. The fact that farmers lack know-how of implementation has contributed to turning many agricultural projects into failures. Projects that were not participatory were not sustainable, as farmers who were the main beneficiaries did not take fully part in the projects. These usually collapsed as soon as the donors' support ended. Lack of agricultural input has made many people, particularly the youth, negative towards agriculture. Farmers continue to depend on traditional crops instead of market crops. The findings from the case study, which was conducted by Kivaisi (2007) into the Tanzania Mushroom Farmers Project, provides the information that can explain why agricultural projects failed in Tanzania. The situation is described below.

The Tanzania Mushroom Farmers Project was initiated in 1995 by the Ministry of Agriculture and Cooperatives in joint collaboration with the University of Dar-es Salam, the Dutch government and the International Fund for Agricultural Development. Mushroom farmers

underwent the initial training as a means to get a grip on the technology for mushroom cultivation. The project covered 5 regions that involved Coast, Dar es Salaam, Kagera, Kilimanjaro and Mbeya (Kivaisi, 2007). People of all categories, including young and old people, males and females, individuals and groups, got involved in mushroom cultivation. They became mushroom farmers in order to get an income and better nutrition for their families and to create ways of generating extra income and self-employment opportunities. They used the money to cover household expenditure, school fees for children and medical costs. The rest of the money could be used for reinvestment in other new projects such as livestock rearing, construction of new houses, installation of water pipes in their homes. However, the project was not successful and problems were specifically found in the areas of training, production, diseases and pests, markets and marketing constraints, and economic and technological constraints (Kivaisi, 2007).

## **1. Training**

Kivaisi (2007) states that not all farmers received the same training and that much of it was done informally by fellow farmers who were not qualified and skilled in mushroom cultivation themselves. The schedule of training offered to farmers varied from one trainer to another (1 to 30 days). The trainees did not have course notes and no one came later to follow up on the outcome of the training. Mushroom cultivation was not promoted by the Tanzanian government at national level, and no extension services were provided to mushroom farmers, who were left on their own after the initial and formal training that they received through the University of Dar-es-Salaam when the project was inaugurated. The mushroom industry cannot be developed without support of the government and of other organizations interested in that industry.

## **2. Production**

Mushroom farmers cultivated mushroom over the years and harvested 4 crops. They got their inputs (residues) from other crops. Residues included banana leaves, bean trash and rice straw, elephant grass and banana juice pulp, finger millet straw, peels, cotton seed oil waste, sawdust and maize stover. The basic hygiene principles of mushroom farming were not adhered to in most of the mushroom houses. Piles of bags of infected mushroom were found very close to mushroom houses and some of these were located near toilets and cattle or pig stalls. The houses that they used for the production were of low technology and built from cheap materials,

available locally (Kivaisi, 2007). The quality of mushroom growing houses (design and inside layout) varied from region to region as indicated below in Images 3-1 and 3-2.

**Image 3-1: Mushroom growing house of banana in the area of Rombo in the village of Kindi**



Source: Kivaisi (2007)

**Image 3-2: A wooden house in the area of Tarakea**



Source: Source: Kivaisi (2007)

The water issue was not addressed. Mushroom growing needs water. In case of water shortage, farmers had to buy water from vendors, which increased the production costs and it made the mushroom cultivation more expensive and uneconomic (Kivaisi, 2007).

### **3. Pests and diseases**

Pests and diseases were as common in mushroom farming as they were in other agricultural crops. The major groups of pests and the main enemies of the project were snails, mice, and flies while the principal diseases involved green and black molds. To control flies, mushroom growers could use insecticides and put wire mesh over all the openings in the mushroom houses. They could remove infested substrate bags. Medicinal plants (Mexican Marigold) could be planted all around the mushroom houses and some of the plant leaves could be placed inside the houses to prevent pests from entering. To control snails, farmers could use ashes or lime to control molds. However, some mushroom farmers were not aware that mushroom pests and diseases were dangerous enemies that might adversely affect the mushroom industry, and they did not know how to deal with the enemies of their crops (Kivaisi, 2007).

### **4. Storage, transport, market and economic constraints**

The mushroom farmers made only few, new investments due to the low incomes from mushroom sales. Therefore, they produced small quantities of mushrooms, sufficient only for

home consumption and for the neighbors. Most of them did not have storage facilities such as refrigerators and a dryer, which were expensive and not affordable for poor farmers. The products that were not sold immediately and not kept in refrigerators got spoiled and were thrown away. This was a great loss. The market involved individuals, restaurants and supermarkets. But the only reliable market that farmers had was among the community members. This was because most of them had few entrepreneurship skills and their product was of too low a quality to be sold to restaurants and supermarkets. The lack of marketing skills also kept them from expanding their markets for extra harvest. For instance, there were no labels and user instructions on spawn bottles about storage condition. They did not bring mushrooms to the markets while they were still fresh, because they lacked reliable transport and the distance from their homes to the marketplace was long. This led to high transport costs and their commercial transactions became unprofitable (Kivaisi, 2007).

A number of stakeholders were involved in the mushroom cultivation project at the beginning, when mushroom farmers received their initial training. But looking at the problems that the project faced, it seems clear that the project was not adequately planned and suffered in addition from inadequate social and economic infrastructures. There was no follow-up after the initial training to check if the farmers had gained enough knowledge and skills to run a successful project. It seemed that project management areas (planning of activities, costs, quality, human resources, risk analysis, etc) were not integrated into the project planning. The project failed from the beginning. Consequently, the chain of operations that included production, storage, transport and markets was problematic. Furthermore, the project failed to assess the environment. An assessment could have helped to analyze the risk of diseases and pests, insufficient production and narrow markets, and contingency plans could have been made. The project's success would have largely depended on the total involvement of all key stakeholders from beginning to end in all the processes of planning, implementation and completion.

#### **3.4.4.2 Rwanda**

Michigan State University (2005) presents a brief account of the success of the Partnership for Enhancing Agriculture in Rwanda through Linkages project (PEARL). The project has been implemented since 2000 through a strong partnership with the Michigan State University and the Rwandan government. It has recorded remarkable achievements, expressed in terms of the extension of the coffee market, increase of export crops, and the improvement of the market

price of coffee at the international level. The better marketing services are the result of partnering with coffee companies from the United Kingdom and the United States. PEARL supports local cooperatives of coffee growers in the building of coffee-washing stations with a strong emphasis on quality processing and management. Today, Rwanda is known internationally for its high quality coffee at fair market prices. This has had an important positive impact on the Rwandan economy. PEARL is working together with a Maraba coffee growers' cooperative named Abahuzamugambi" (Image 3-3).

**Image 3-3: Members of the Abahuzamugambi Coffee Growers Cooperative of Maraba**



Members of the Abahuzamugambi Coffee Growers Cooperative of Maraba, Rwanda. Their coffee is now exported and sold directly to Community Coffee of Baton Rouge, Louisiana and other specialty coffee companies in the US and the UK.

Source: Michigan State University (2005).

A group of 220 coffee growers in the District of Maraba, in Butare Province (southern region of Rwanda), decided in 1999 to form a cooperative to increase their incomes by pooling their coffee harvests and selling directly to exporters based in Kigali. The name, ABAHUZAMUGAMBI, means 'working together to achieve the desired results'. With the profits they got, they purchased fertilizers, farm tools, and vegetable seed for the members of the cooperative. This membership has steadily increased. In 2001 there were 425, and now over 1500 coffee growers (Michigan State University, 2005). The quality of the coffee production process is guaranteed, from beginning to end (from the plantation of coffee trees to the sales of the harvest) as indicated in Images 3-4- to 3-8.

**Image 3-4: Coffee plantation**



**Image 3-5: Pre-sorting cherries**



Source: Michigan State University (2005). Source: Michigan State University (2005).

**Image 3-6: Old system of processing coffee**



**Image 3-7: One of Maraba's coffee washing stations**



Source: Michigan State University (2005). Source: Michigan State University (2005).

**Image 3-8: Maraba coffee in supermarkets in the UK**



Source: Michigan State University (2005).

From the images, one can see that the coffee growers use certified coffee plantations from where they obtain the top quality cherries. The treatment of the harvest has moved from using a traditional coffee washing station to new ones, which are well constructed and guarantee maximum hygiene. The coffee market in the UK is large enough to absorb the production because of a strong partnership built by the governments of Rwanda and Britain.



The cooperative was in a number of ways advantaged by PEARL (Michigan State University, 2005):

- Remarkable technical support for quality control;
- Increase of export of speciality coffee of high quality;
- Skills in developing and implementing a business plan;
- Cooperative management skills and better financing services;
- New skills in processing systems, that is, new coffee-washing stations (images 3-2 to 3-6).

PEARL has been also working together with main institutions involved in agriculture: the National University of Rwanda (NUR) and the Rwandan Agricultural Research Institute (ISAR). This partnership is an important support for sustainable development in the agricultural sector. In this regard, Michigan State University and Texas A&M University have trained 16 members of the two Rwandan institutions focusing on agricultural extension. These people are now teaching what they have learned back home in Rwanda, conducting research and building strong linkages between NUR and ISAR, and partners in the rural communities. Furthermore, PEARL extends its services to increasing the capacity building and upgrading the curriculum at the National University of Rwanda (Michigan State University, 2005).

Working with more than 10 grower cooperatives throughout Rwanda, PEARL has had a significant impact on the lives of coffee growers. Incomes have increased and helped to pay school fees, fees for medical care and medical insurance and to improve their housing conditions. The project has participated in creating new jobs, producing quality coffee, supplying clean water to farmsteads, providing coffee growers with coffee plantation management skills, and taking gender sensitivity into consideration by helping widows and orphans to increase their coffee harvest through management skills (Michigan State University, 2005).

Moreover, in February 2003, Maraba coffee was launched in Sainsbury Supermarket in London (image 3-6). The opening ceremony was held by the Union Roasters (a second corporate partner of growers). The honourable guests who attended the ceremony included the British Secretary of State and the government of Rwanda was represented by the Minister of Commerce. The ceremony was closed with the ratification of a trading agreement through which good prices were guaranteed to the coffee growers (Michigan State University, 2005).

The key factor to the success of the cooperatives lies in productive synergy. This entails the developing and enhancing of partnership relationships with PEARL and other partners such as coffee companies in the US and the UK, Sainsbury Supermarket, the British government, the government of Rwanda, the National University of Rwanda, the Institute of Agricultural Sciences in Rwanda, Michigan State University, and the local people at large. These relationships resulted in significant resources (technical and financial assistance and skilled human resources), specifically for coffee growers in Maraba (Michigan State University, 2005).

The lessons to be learned from these cases is that the critical success factors were rooted in partnership relationships, management skills, resources, involvement of stakeholders, especially the project beneficiaries, and environmental considerations. Contrary to the Tanzanian mushroom project, PEARL succeeded in benefiting from these factors. However, the challenges facing projects in developing countries include the fact that projects are viewed as part of the new economy to which they have to constantly adapt in order to maintain their sustainability. As Blois (2000) states, key features of the new economy are that it is based on Information and Communication Technology (ICT) rather than on mass production. This technology is a source of innovation and global competition in a changing environment. According to Darwin (2002) and Richter (1997), some developing countries where agriculture is the dominating sector of the economy, are using the Internet to predict weather conditions, organize the storage of crop harvests and collect relevant information about markets of seed, crops and livestock. The Internet is a useful tool if one aspires to an optimal use of natural resources such as land and water and wants to find out about the success levels of competitors or to diversify markets, products and services.

However, although the world is dominated by the information age, there are countries where ICT is not sufficiently developed to take advantage of these opportunities. In those countries there is limited access to the Internet. Also workers skilled in information technology are still few in number.

### **3.5 CHAPTER SUMMARY**

The purpose of Chapter Three is to contribute to the knowledge of the field of research as it relates to the researcher's particular interest, and to create a basis for the systematical answering of the research questions. In this chapter, the literature indicates project failures in connection

with the external environment, for example factors of a physical nature (arable and pasture land, forests, water, and weather), especially for agricultural development projects. External factors could also be linked to culture, human resources, gender, globalization, financial institutions (banking services and FDI), education and health, etc. It became clear that information on the project's internal and external environment was of the greatest importance for its planning.

Shortcomings were found in the literature when it came to assessing the causes of project failures. In Chapter Two, some authors put a strong emphasis on the internal environment. In Chapter Three, some authors focused on physical environmental factors. Others blamed social and economic environmental factors. However, all these environmental factors should be considered and brought into some synthesis, especially when it concerns a project in the agricultural sector. The reason for this is that a project is regarded as a system, and when one aspect of a system is neglected, the whole system is adversely affected. The usefulness of systems thinking was apparently in many cases underestimated, whereas it could provide a very sound approach to planning. It helps to apply the information, gathered from the project environment, to establish relationships and interconnectedness between people and their material environment, in interaction within and outside the project. Neglecting to integrate systems thinking into the project management, along with a poor environmental analysis, results in poor planning which has a negative impact on the project implementation.

Moreover, project evaluation in order to assess the causes of project failures was overlooked in the literature. Project evaluation, when purposefully and properly undertaken, is important for the successful running of projects. Evaluation, for instance, plays a role in project monitoring, which is done during the phase of project implementation, where data are collected to measure progress and to make appropriate managerial decisions at the right time. Evaluation of the project relevance, its coherence and impact is also carried out, not only during the implementation phase but throughout the project's life cycle. However, in most projects, evaluation appeared to be ignored or not considered as a project critical success factor. Chapter Four sets out specifically to discuss this issue, and to bridge the gap between management and evaluation, leading to more answers to the research questions.

## CHAPTER FOUR: PROJECT EVALUATION PRINCIPLES

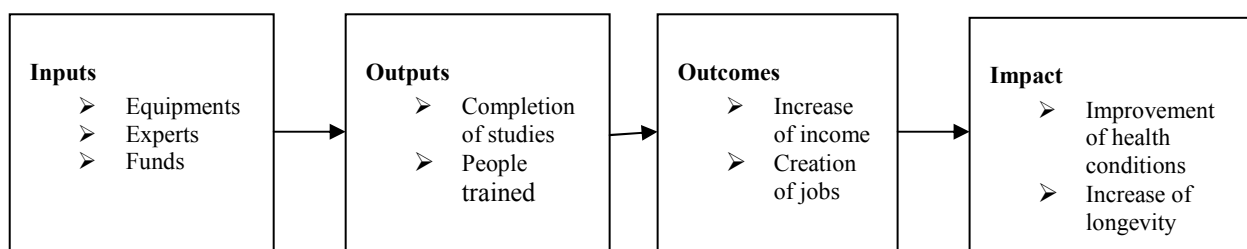
The focus of this chapter is on the concepts of evaluation, purposes of evaluation, evaluation forms, evaluation approaches and some problems encountered in the process of evaluation.

### 4.1 THE CONCEPT OF EVALUATION

Sang (1995:2) views project evaluation as a study, undertaken to determine the project's merit, quality, and desirability, for a given purpose. Owen and Rogers (1999:3) found that evaluation implies the collecting of data to counter misunderstandings and misinterpretations, clarify false facts and find appropriate ways of resolving inconsistencies in values. According to the UNDP Handbook on Monitoring and Evaluating for Results (2002:100), evaluation tries to assess objectively and systematically the relevance, effectiveness, performance, efficiency, impact, success and sustainability of existing and completed projects or programmes. The Public Health Agency of Canada (1996) adds that effective evaluation provides information on the project results to facilitate the learning process and aid decision-making and to improve efficiency and effectiveness of ongoing and future projects. Sanders (2001) recommends disciplined evaluation when limited resources are being spent, for human services such as education, for products that affect human safety such as environmental protection, rail road and air transport safety, and for economic development of a nation.

Evaluation is a judicious exercise which tries to objectively and systematically assess improvement towards achieving an output and outcome. Outputs refer to specific products and services, and outcomes to changes in conditions of development. Outcomes include the contribution of stakeholders and the production of outputs. Figure 4-1 below illustrates the differences between outputs and outcomes.

**Figure 4-1: The chain of results**



Source: UNDP Handbook on Monitoring and Evaluating for Results (2002:7).

## 4.2 PURPOSES OF EVALUATION

According to Sang (1995:3-4), project evaluation serves to provide the necessary information on a project to administrators, planners and financiers for decision-making. For instance, in developing countries, these people need such information because they need to know internal and external conditions of the project, the adequacy of the project design, the accuracy of data presented, and the expected results. Project evaluation establishes an order of priority among competing projects, and assesses the financial profitability of the project. It helps to rationalize the resources allocation among different sectors and project at the macroeconomic scale. The ultimate objective of project evaluation in the private sector is maximizing profitability; the ultimate objective of projects in the public sector is the pursuit of optimal national gains.

Rossi and Freeman (1979:34) argue that evaluation can be undertaken for the purposes of management and administration, to assess whether programme changes are appropriate and improve the quality of the service or product delivery, and meet the requirements of sponsors. Evaluation can be undertaken for the purposes of planning and policy, to help decide on whether to advocate one programme or another. Feek (1988) stated four distinct targets for evaluation:

- Evaluation seeks to explain the nature of the problem, issues, or challenges that people are experiencing.
- Evaluations seek to explain what actually happened in a programme, project or initiative that an organization is running.
- Evaluation seeks to assess the extent to which a programme, project, or initiative has been successful in achieving what it set out to achieve.
- Evaluation seeks to assess how efficiently limited resources available to the project, programme, or organization were used.

Supporting the importance of evaluation, the United Nations Centre for Human Settlements (2003) indicates that there are several key factors to be taken into consideration. In fact, the evaluation helps to determine the project's relevance, that is, the extent to which the project meets the needs of a local community. It is also useful to assess the impact of the project, determining whether the project has made significant changes (negative or positive impact) among the local community. Even if the evaluation is carried out at specific intervals of time, the impact should be considered from the time of project design and planning until its end. A good

evaluation structure is based on measurable indicators, both quantitative and qualitative, as the best way of data collection and of getting useful results.

### **4.3 FORMS OF EVALUATION**

Different forms of evaluation, taken together, point to a wide range of roles for evaluation. The evaluation can be conceptually classified into seven categories or forms, namely proactive, clarificative, interactive, monitoring, impact-focused, realistic, internal and external evaluation.

#### **4.3.1 Proactive Evaluation**

Owen and Rogers (1999:41) hold that proactive evaluation takes place before designing a programme. It helps planners of the programme to make decisions on the type of programme that they need. Rossi and Freeman (1979:35) observe that the forefront of the process of programme development and efforts of evaluation are largely analytic and are oriented towards a better understanding of the aspects of a social problem, which includes its scope, origin and propensity to intervention. Owen and Rogers (1999:41) maintain that the major purpose of proactive evaluation is to provide input to help deciding how best to build up a programme before the planning stage. Proactive evaluation is an important evaluation form at the conceptualization stage of a project. Failure to carry out effective proactive evaluation will result in a project design that does not meet the requirements of a customer or client.

#### **4.3.2 Clarificative and interactive evaluation**

Owen and Rogers (1999:42-44) state that clarificative evaluation focuses on elucidating the internal structure of a programme and its functioning, and studies the causal relationships that link program activities with intended outcomes. Clarificative evaluation should be carried out during the phase of the project design in order to clarify the structure and the project objectives, and during project implementation when there are misunderstandings about how the project should be implemented. As far as interactive evaluation is concerned, Owen and Rogers (1999:44) argue that it gives information about programme delivery and implementation and can be concerned with documentation or incremental improvement of a programme. The evaluator provides findings and facilitates learning and decision-making. Owen and Rogers (1999:44-45) observe that interactive evaluation provides information oriented toward improving the programme. Interactive evaluation targets middle managers and the project team, and is carried out during the project implementation phase.

### **4.3.3 Monitoring evaluation**

The United Nations Centre for Human Settlements (2003) views monitoring as a constant process in all the phases of the project life cycle. This process provides managers with significant indicators on the project impacts, both negative and positive. As Rossi and Freeman (1979:164) indicate, monitoring evaluation assesses whether or not a programme is being implemented according to its design and whether or not it is meeting the needs of its specified beneficiaries. The UNDP Handbook on Monitoring and Evaluation for Results (2002:6) argues that monitoring is a continuing task aimed at providing main stakeholders and management with indicators of performance or of problems that have been identified in the process of achieving expected results. Monitoring deals with the real performance of a project as against what had been planned and generally involves gathering and analyzing data on the processes of the project implementation, releasing results and suggesting recommendations necessary for corrective measures. Owen and Rogers (1999:46) argue that managers undertake monitoring evaluation when they need indications of how successful the programme and to justify its expenditure.

### **4.3.4 Impact evaluation**

Rossi and Freeman (1979:36) write that an impact evaluation is a judgement on the degree to which a programme makes changes in the desirable direction (objectives). Rossi and Freeman (1979:37) state that conducting an impact evaluation requires a plan for the collection of data. The data will permit the evaluator, in a persuasive way, to demonstrate that changes occurring are a function of a particular programme or project intervention, and can't be accounted for otherwise. Rossi and Freeman (1979:290-293) further assert that there is agreement that randomized experimental designs are ideally the most appropriate and reliable way of measuring impact, since they provide the best means of controlling a variety of potential biases. However, it can be argued that the above assertion may not be valid for project and programme evaluations today. Experimental designs may be difficult or too expensive to carry out and there is a trend towards employing both qualitative and quantitative evaluation approaches. The authors also point out that impact evaluations are necessary to compare different programmes or test the value of new efforts to address a particular problem in the community.

#### **4.3.5 Realistic evaluation**

Pawson and Tilley (1997:216) argue that programmes and projects deal with real problems, and therefore realistic evaluation is a valuable contribution to attaining a realistic formulation of the programme's policies for the benefit of all stakeholders. Pawson and Tilley (1997:215) indicate that realistic evaluation is primarily focused on the intervention of all stakeholders and the optimal allocation of resources for the programme's success. Pawson and Tilley (1997:217) state that realistic evaluation sees the project and programme development as an effort to collect the knowledge needed to identify tasks to be done, their beneficiaries and the conditions in which they have to be done. This knowledge can be collected through an understanding of past projects or programmes, and through empirical research. Realistic evaluation is a useful approach in the phases of conceptualisation and planning of a project.

#### **4.3.6 Internal and external evaluation**

According to Worthen and Sanders (1987:37), the internal evaluator is almost certain to know more about the programme than any outsider, but he may be too close to the programme to be completely objective. It is not common to question the objectivity of an external evaluator and it can be said that this, in addition to professionalism and experience, is the advantage of an external evaluator. At the same time, the external evaluator will never learn as much about the programme as the insider knows. As Owen and Rogers (1999:49) indicate, it is important for all of those involved in any evaluation to choose the most appropriate way of proceeding.

#### **4.3.7 Lesson from these forms of evaluation**

These forms of evaluation can contribute to the project's effective evaluation if they are properly used throughout the project life cycle, not broken up into separate and independent evaluations but seen as a series of complementary evaluations. This is what O'Sullivan (2004:3-4) says: the project life cycle influences the types of evaluation undertaken for different purposes. Thus, the purpose can be program or project improvement, or to determine its short-term and long-term impacts, to identify its strengths and weaknesses, or to justify additional resources, to obtain support for a particular program/project approach, or to get clarification on the next phase of a project, dissemination of findings, in response to attacks on a program/project or the strengthening of additional resources. With reference to the statement of O'Sullivan, relationships between purposes of evaluation, forms of evaluation and phases of a project can be established as it is illustrated in Table 4-1.



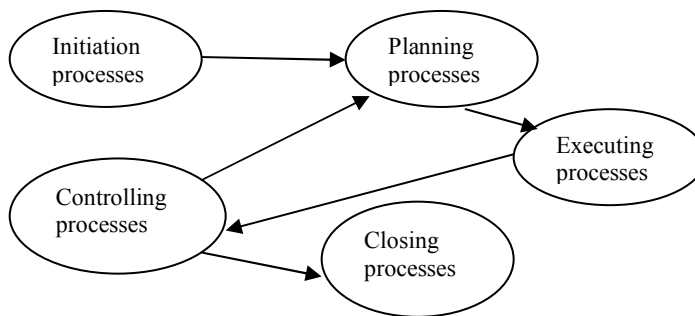
**Table 4-1: Integration of evaluation purposes and evaluation forms in the programme/project life cycle**

Purpose of evaluation	Form of evaluation	Phase of the project life cycle	Potential stakeholders
Program or project improvement	Interactive evaluation	Implementation phase	sponsors, manager and team leader
Short-term and long-term impacts of a program /project	Impact evaluation	Implementation phase Closeout phase	sponsors, manager and team leader
Identification of a program or a project's strengths and weaknesses	Proactive or realistic evaluation	Conceptual phase Closeout phase	sponsors and owners
Justification of additional resources, obtainment of support for a particular program or project approach	Clarificative evaluation	Implementation phase	sponsors, manager and team leader
Dissemination of findings	Monitoring, impact evaluation	Implementation phase closeout phase	sponsors, manager and team leader, senior project personnel
Response to attacks on a program/project and strengthening of additional resources	Clarificative evaluation	Implementation phase	sponsors, manager and team leader

Source: the researcher based on O'Sullivan (2004:3-4).

The table indicates that these different purposes can be achieved by different stakeholders in the same programme or project, but at different times of its life cycle depending on the form of evaluation that is to be undertaken. These relationships mean that the project evaluation is not a discontinuous activity but an activity that overlaps all phases of the project life cycle. Evaluation which is done in this way can influence the project management because the processes of planning, executing and controlling can be carried out in iterative way until the project is successfully terminated as Figure 4-2 illustrates.

**Figure 4-2: Relationships between the project management processes**



Source: Project Management Institute (1996).

Reinforcing this point of view, the UNDP Handbook (2002) states, that evaluation is a learning process which continues throughout the project and provides useful information that is integrated into the decision-making process. The United Nations Centre for Human Settlements (2003) points out that the definition of evaluation indicates that a project is regularly and methodically reviewed. Whether the project is completed or in progress, the assessment is particularly concerned with the project design, implementation and result. The aim is to determine the project's relevance, coherence, effectiveness and impact and, at the same time, to collect relevant information so that it becomes possible to identify mistakes, to learn from these and to make necessary changes. Sanders (2001) adds, that evaluation brings about conceptual clarification, clear and reasonable directions for development, choice of decisions when many viable options are provided and protection when changes are proposed.

The literature does not provide the best form of evaluation, but indicates how the forms can be integrated in the management processes to achieve the project objectives. However, if evaluators wait until the stage of project implementation, their evaluation may end up contributing only a little to an improved quality of project management and of the lives of the project stakeholders. The forms of evaluation as discussed above inform on the nature of a particular evaluation, the participants, and when it is to be undertaken, depending on the purposes of the evaluation. Their description also provides orientation as to appropriate approaches and methods that are used to gather relevant information for potential users. The following section deals with evaluation approaches.

#### **4.4 EVALUATION APPROACHES**

A project passes through different stages, each of which requires its own decisions and therefore has to be objectively evaluated because the output obtained at that level becomes an input for the following stage. When that output is not adequate, the following phases will suffer. That is why projects need to be continuously evaluated from the beginning to the end, and even after the project's closing down (Sang, 1995:22) as indicated in Table 4-2.

**Table 4.2: Possible evaluation activities during the life of a programme/project**

Program/project Conceptualization	Program/ project planning	Program/project implementation	Program/project completion
<ul style="list-style-type: none"><li>• Reviewing relevant literature</li><li>• Assessing needs</li><li>• Conducting focus groups</li><li>• Analyzing cost effectiveness</li></ul>	<ul style="list-style-type: none"><li>• Creating personnel projections</li><li>• Establishing timelines</li><li>• Estimating costs</li><li>• Identifying procurement alternatives</li></ul>	<ul style="list-style-type: none"><li>• Monitoring program/project activities</li><li>• Developing databases</li><li>• Assessing program/project functioning</li><li>• Determining short-term impact</li></ul>	<ul style="list-style-type: none"><li>• Assessing long-term impact</li><li>• Determining program/project strengths</li><li>• Identifying areas for subsequent improvement</li><li>• Assessing cost effectiveness</li></ul>

Source: O’Sullivan (2004:3).

Projects need to be evaluated and from the above table, it is clear that evaluation must start in the early stages of the project. In the phase of conceptualization, evaluation is required, for example, to assess stakeholders’ needs and the potential success of the project (feasibility study) with reference to the available resources and existing projects in similar fields. In the phase of planning, there is a need to estimate resources and costs. During the phase of implementation, evaluation is conducted to assess the successful implementation of the project components, the degree to which the project goals and objectives are being achieved, and the relevance and impacts of the project.

Pawson and Tilley (1997:215) argue that successful evaluation of the project in all phases of its life cycle is conducted from the perspectives of various stakeholders involved in the project, because these have different interests, expectations and purposes which in some cases are conflicting. O’Sullivan (2004:7) maintains that it is useful to consider them with particular attention as the purposes of evaluation greatly differ. For this reason, O’Sullivan (2004:7) indicates some approaches for evaluation that are useful especially if one wants take the perspectives of different stakeholders into consideration. Various evaluation approaches have been developed to meet these requirements.

#### **4.4.1 Evaluation approaches as developed by O’Sullivan**

O’Sullivan (2004:7) found that a meaningful evaluation is based on objectives, management, expertise, adversary and participant approaches as indicated in Table 4-3.

**Table 4-3: Evaluation approaches**

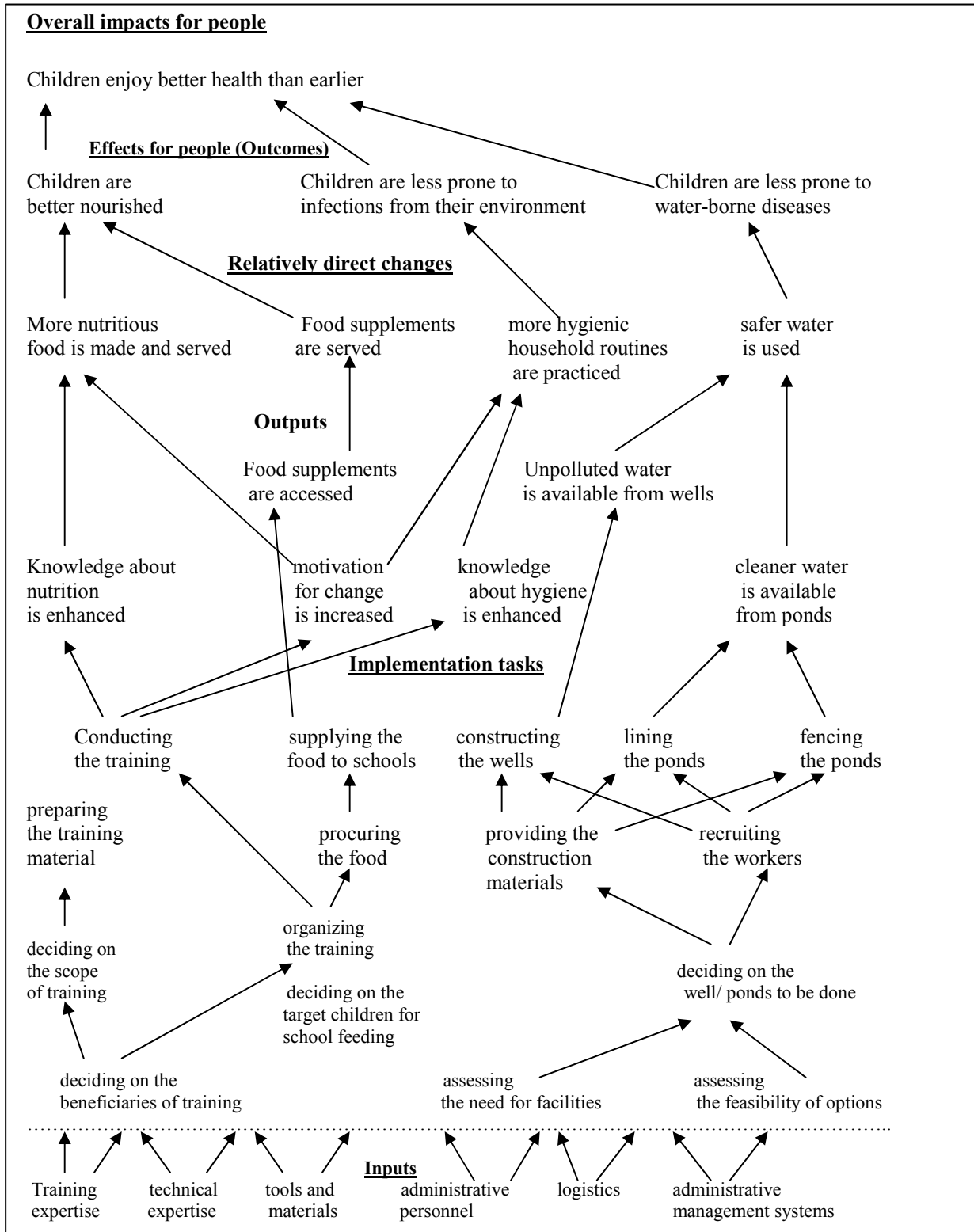
<b>Approach</b>	<b>Primary audiences</b>
<i>Objectives</i> : the focus is on objectives to determine the degree of their achievement	Program/project sponsors, managers
<i>Management</i> : the focus is on generating information to assist program/project decision-makers	Program/project managers, staff
<i>Consumer</i> : the approach looks at programs /projects and products to determine relative merits	Public, program/project sponsors
<i>Expertise</i> : the emphasis is on establishing peer and professional judgments on quality	Peer group, public
<i>Adversary</i> : the approach examines programs/projects from pro and con perspectives	Program /project sponsors, public
<i>Participant</i> : The focus of the approach is on addressing stakeholders' needs information	Participants, staff, community members

Source: O'Sullivan (2004:7).

**The objective-oriented approach** considers the extent to which objectives of a program or project has been achieved (O'Sullivan, 2004:62). When evaluators do not work together with key stakeholders during the evaluation design and implementation, it becomes very difficult to achieve the evaluation objectives be achieved, because in some cases those objectives are not clear and need clarification through the intervention of different stakeholders. Usually, the objective based approach can provide relevant information concerning a program or project's effectiveness. However, the strong stress on outcomes may be an obstacle to collecting information in relation to those aspects, which contributed to the achieving or not achieving of the program or project objectives (O'Sullivan, 2004:7).

**The decision-making (management) approach** provides information that administrators of a program or project need to determine future program or project direction (O'Sullivan, 2004:62). The approach considers the different aspects of program or projects from the perspective of their designers and administrators (O'Sullivan, 2004:7). Stufflebeam (2000) quoted in O'Sullivan (2004:7) and Soumelis (1977:27) argue that the model of evaluation based on context, input, process and output overcomes the weaknesses of the objective-based approach (evaluation based only on outcomes). Program and project evaluation establishes links between inputs, outputs, intended benefits, outcomes and the overall impact for people as Figure 4-3 indicates. The example is a health promotion project, which was planned in more detail, implemented, and evaluated to assess direct changes and effects, and the overall impact on people (better health of children).

**Figure 4-3: Links between inputs, outputs, outcomes and impacts.**



Source: Dale (2004:58)

As indicated in Figure 4-3, the inputs include, for example, human and material resources, management systems and technical and training expertise, etc. These elements are translated into the recruitment of workers for lining and fencing the ponds, supply of materials for constructing the wells, and procurement of food to schools, etc. The outputs are the availability of unpolluted water and accessed food supplements. Changes made are that the use of clean water contributes to decrease infection diseases and improve children's health. The example indicates that the evaluation includes all the health processes (from the beginning to the end), not only the outcomes.

As O'Sullivan (2004:8) highlights, the evaluation model based on context, input, process and output, is used to surmount the weaknesses of the objective-based approach because this model provides strategies of evaluation for assessing needs of a program or project (context), determining what is needed to start a program or project (input), monitoring the program or project as it opens out to improve its performance (process), and measuring the program or project impact (product). However, this model has a limitation in that it does not provide the feedback and involve participants or the public at large as a potential audience in the evaluation. The evaluation is limited to project designers and managers. Attempts to use a systemic approach in evaluation are thereby undermined.

**The consumer-oriented approach** considers the program or project effects on stakeholders, such as staff and community. For this reason, evaluators often use the consumer-oriented approach as one of multiple approaches that are adapted for the purpose of generating effective evaluation (O'Sullivan, 2004:62). O'Sullivan (2004:7-8) suggests that an analysis of the cost-effectiveness of program or project options can be included in this approach, along with meta-analyses, comparing program or project outcomes across various program or project strategies.

**The expertise approach** gets leaders of programs or projects to look for peers and other experts in appropriate fields. The peers and experts are invited to review a program or project and to analyze its merits. This in turn helps the program or project implementers to understand events occurring in the program or project, or to solve problems (O'Sullivan, 2004:8).

In particular circumstances, programs or projects may be put on trial. Project leaders present their cases to court for an evaluation, applying **the adversary approach**. A jury may be selected, witnesses are called, arguments for the defense and the prosecution are heard and finally there is a verdict on the merits of the program/project. An example of such a case is

when a dispute is raised within a program/ project, and neutral judges arbitrate. The approach requires however a thorough investigation of the case concerned (O'Sullivan, 2004:8).

As far as the **participant approach** is concerned, its central focus is on the value of undertaking an evaluation which involves key stakeholders, so that perspectives of participants are engaged in the process of evaluation (O'Sullivan, 2004:8).

O'Sullivan's model provides a range of evaluation approaches from which an evaluator can select the appropriate one for the specific evaluation he wants to conduct. He has to take the evaluation purposes, its participants and their perspectives into account. Evaluation can be undertaken in the different phases of the project life cycle. However, a systemic orientation and integration of the environment concerned are lacking in O'Sullivan's evaluation approaches.

#### **4.4.2 The model of evaluation approaches according to Guba, Lincoln and Zadek**

Guba and Lincoln (1989) hold, that approaches including measurements (size, weight, volume, score, value, etc), description and judgment, can be suitably used for effective evaluation. Guba and Lincoln (1989:22) argue that the role of the evaluator is that of a **measurer** and he/she is required to have the expertise to apply the relevant measurement instruments. This approach is essential for project control and monitoring during the implementation phase. It is also useful at the end of the project for the purpose of carrying out summative evaluation.

Guba and Lincoln (1989:28) find the **description approach** helpful because it describes weaknesses and strengths in relation to certain stated objectives. The role of the evaluator is that of a describer, although the measurement approach is retained as well. This approach can be applied both during the conceptualization and the closing phases of a project. During conceptualization, the description approach can be used to gather all the details necessary for an adequate design of the project. During the closing phase, description can be used to assess the impacts of the project and whether its goals have been achieved.

Guba and Lincoln (1989:30) acknowledge the **judgment approach** because they found that there is a great need to make judgements on the basis of available data and in the light of predetermined aims. Although the evaluator should recognize the value of measurement and description approaches, his roles as a measurer and describer are subordinate to his role as a judge. This approach is regarded as a useful tool during project implementation. The project

team, especially the project managers, needs to make appropriate judgements based on facts and descriptions in order to take appropriate actions. But Zadek, (1999) citing Guba and Lincoln (1989), asserts that, although the approaches of measurement, description, and judgment are important for evaluation, they fail to appreciate in particular:

- Real power relations existing and pressuring the evaluator within the evaluation process. These power structures affect the relationships between those being evaluated and the practical ability of an evaluator to be a neutral outsider.
- The plurality of value bases existing simultaneously within the evaluation process, as well as multiple interests, agendas, and perceptions; and
- The consequential need to cope with multiple perspectives within the evaluation process that are not mediated by resort to the assertion of facts, but to the mediation of perspectives.

Zadek (1999) suggests that the **mediation approach** can be useful, taking into consideration various perspectives of different stakeholders for a negotiated solution to a specific problem situation. The approach consists in negotiation and mediation between stakeholders. These are effective tools that enhance communication between the parties involved in the project. Zadek (1999), citing Guba and Lincoln (1989), estimates that the evaluator is both a facilitator who elicits the views of different stakeholders, and a mediator who brings the stakeholders to a level of consensus as to what happened in the past and what should happen in the future. The evaluator does not seek to identify, but rather to highlight and mediate between different views rooted in different interests and worldviews. The evaluator does not seek to determine a solution, but rather encourages the various stakeholders to reach an agreement. For this reason, Owen and Rogers (1999:40) emphasize that this approach should be used throughout the project cycle.

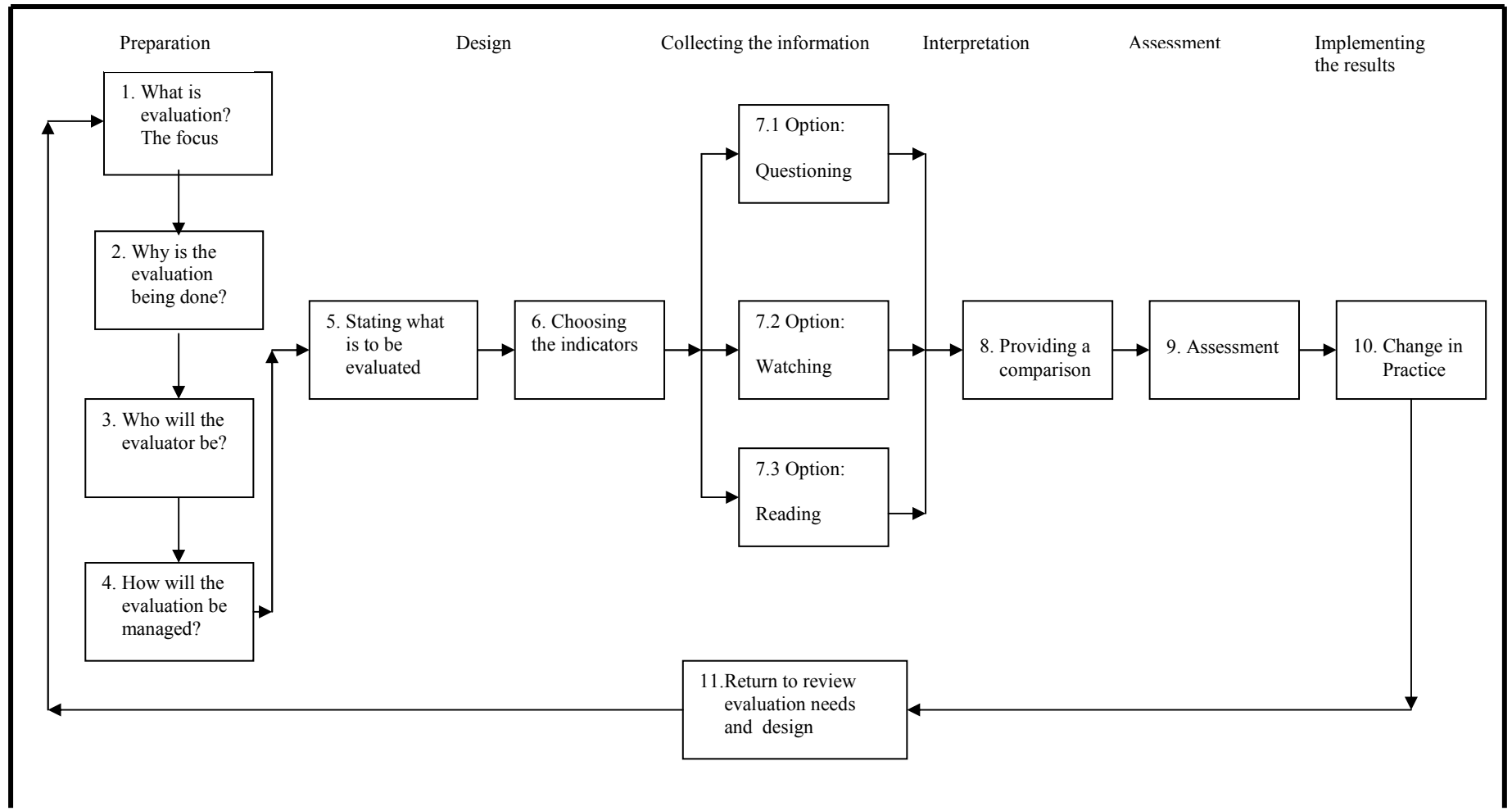
On the basis of this discussion it can be argued that no particular evaluation approach is seen as the most appropriate for a specific phase of a project. The challenge is for the evaluator to select an approach or a set of approaches which he/she considers appropriate to the project, depending on the purpose of evaluation, the perspectives of stakeholders and the project environment.

#### **4.4.3 Evaluation approach of UNCHS (United Nations Centre for Human Settlements)**

UNCHS (2003) suggests that proper evaluation is based on the following elements: preparation of an evaluation plan, indicators development, structuring of indicators, undertaking of evaluation and learning from evaluation as indicated in Figure 4-4.



**Figure 4-4: Stages in the Evaluation Process**



Source: Feek (1988).

From Figure 4-4, one can see that evaluation is systematically done through five steps: preparation of evaluation, design of evaluation, data collection, data analysis and implementation of the results. UNCHS (2003) developed these stages as follows.

The first step involves planning evaluation and provides the following information:

- Identify the real needs of evaluation which are clearly understood by all key stakeholders involved with the project.
- Determine the project objectives, expected outcomes and impacts.
- Identify the actors concerned with evaluation, because the evaluation should be divided into three categories: self-evaluation done by project staff, outside evaluation normally carried out by someone else with no direct connection with project, and joint evaluation done both by project staff and evaluators from outside the project.
- Specify the scope of the evaluation (UNCHS, 2003).

The second step identifies performance indicators, which are regarded as a measurement of project progress in terms of objectives' achievement. Indicators should be quantitative or qualitative and help to make comparisons between objectives and results. They help actors involved with the project to identify problems, revise objectives, draw lessons and discuss decisions to be made for improving the situation. There are road signs for change in the right direction. These could be used as a way of logically linking inputs, outputs and outcomes of the project (UNCHS, 2003).

The third step structures performance indicators, which have been identified and integrates them into the overall project design and implementation. They should be structured into categories with regard to policy, programme and operational levels (UNCHS, 2003).

The fourth step involves undertaking evaluation, which includes the methodology of evaluation and the design of the evaluation report. The methodology deals with data collection methods which may include groups interviewed, timeframe and methods used such as interviews, meetings, participant observation, questionnaire, etc. For a quantitative and/or qualitative study, the methodology also indicates methods of data analysis that should be used for measuring the project impacts at local, regional and national level. The evaluation report should include the project relevance, efficiency, effectiveness, sustainability, impact, and cost-effectiveness (UNCHS, 2003).

The fifth step is concerned with learning from the evaluation. For evaluation to be effective, it needs to be viewed as under the ownership of all key stakeholders of the project. In that case the implementation of results and joint learning may produce the desired outcomes (UNCHS, 2003). The Public Health Agency of Canada (1996) suggests that the framework for project evaluation should indicate the following elements:

- Describe activities: clear definition of measurable goals and objectives of the evaluation;
- Identify reasons for success: identification of performance indicators that should be used in measuring the achievement of the project objectives and assessing the project impacts;
- Assess impact: the measurement of the project impacts requires collecting data, indicating the appropriate information needed, data collection and analysis methods to be used, and the participants who hold that information;
- Analyze data and interpret the results: This is about a summary and analysis of data collected and lessons learnt from the findings;
- Use the evaluation findings: These should be used both within the project for making change and by external stakeholders and other projects.

The model of evaluation adopted by the UNCHS (2003) which was designed by Feek (1988) and the model of the Public Health Agency of Canada (1996) are similar, except that the Public Health Agency of Canada added the element of assessment of impact. Like the model of the Public Health Agency of Canada, the model adopted by the UNCHS was limited only to evaluation methods. It did not provide any information about purposes and forms of evaluation. This model can be used only in the phases of implementation and at the project's closing down, for example to monitor its progress or to assess its impact. It is not concerned with the project's feasibility study and planning. A project designed and planned in these conditions is more likely to be unsuccessful if evaluators postpone their evaluation until the implementation phase. In that case the feasibility study and planning are not evaluated and their quality, possibly poor due to inadequate environmental analysis or poor involvement of stakeholders, remains undetected. The model does not establish links between management and evaluation and, therefore, the importance of evaluation for the project management. The model overlooks other elements such as leadership and the project life cycle, which are important factors for an effective evaluation. Leadership motivates those who evaluate the project and solves potential conflicts among stakeholders during the evaluation process. The life cycle indicates the phases in which different

forms of evaluation are undertaken, as well as activities, resources, outputs, outcomes and participants selected for a specific project phase.

The UNCHS (2003) acknowledges, however, that a good and useful evaluation adheres also to criteria of transparency, independence, cumulativeness, relevance, efficiency, sustainability and impact as indicated in Table 4-4. These criteria are normally included in the design of an evaluation report (UNCHS, 2003).

**Table 4-4: Evaluation criteria**

Transparent	Transparency is achieved when all participants in the evaluation feel that they are responsible for the ownership of the project
Independent	Independence in project evaluation does not mean that the evaluation is only the work of an external evaluator; the value should also be given to an internal evaluator when necessary and applicable
Consultative	The criterion of consultation between local stakeholders and the project team has to be highly privileged as a successful participatory approach in evaluating a project.
Relevance	The ability of a project to respond to the needs and problems of the community at local, regional and national level and provide local managerial and financial capacities and strengthen decentralized structures.
Efficiency	The good use of resources available and the ability to get opportunities from social, political and cultural environment.
Sustainability	This refers to seeing whether the project is achieving the desired results, developing strong partnership and citizenship with key stakeholders, and participatory approach in decision-making.
Impact	Measures the achievement of the project objectives, desired and unintended outcomes and lessons for local community, government, civil society, and other projects operating at the local, regional, national and international level.

Source: UNCHS (2003).

These criteria were supported by Dale (2004:76-78) who emphasizes that appropriate evaluation is based on the criteria of relevance, effectiveness, impact, efficiency and sustainability, and who adds two new criteria, effectiveness and repeatability, as indicated in Table 4-5.

**Table 4-5: Evaluation criteria**

Evaluation criteria	Evaluated elements
Relevance	Relevance is about the extent to which the program or project is addressing or has addressed problems of high priority mainly from the perspective of actual and potential stakeholders, especially the beneficiaries of the program or project.
Effectiveness	Effectiveness expresses the extent to which the planned outputs, anticipated effects (immediate and effect objectives) and planned impact (development objectives) have been or are being produced or achieved.
Impact	Impact is about the overall program or project consequences for intended beneficiaries and other stakeholders.
Efficiency	Efficiency expresses the quantity of outputs created and their quality with regard to the investment of capital and human efforts (resources).
Sustainability	Sustainability expressed in terms of maintenance or increase of positive achievements generated by the evaluated program or project.
Repeatability	Repeatability is “the feasibility of repeating the particular program or project or parts of it in another context”

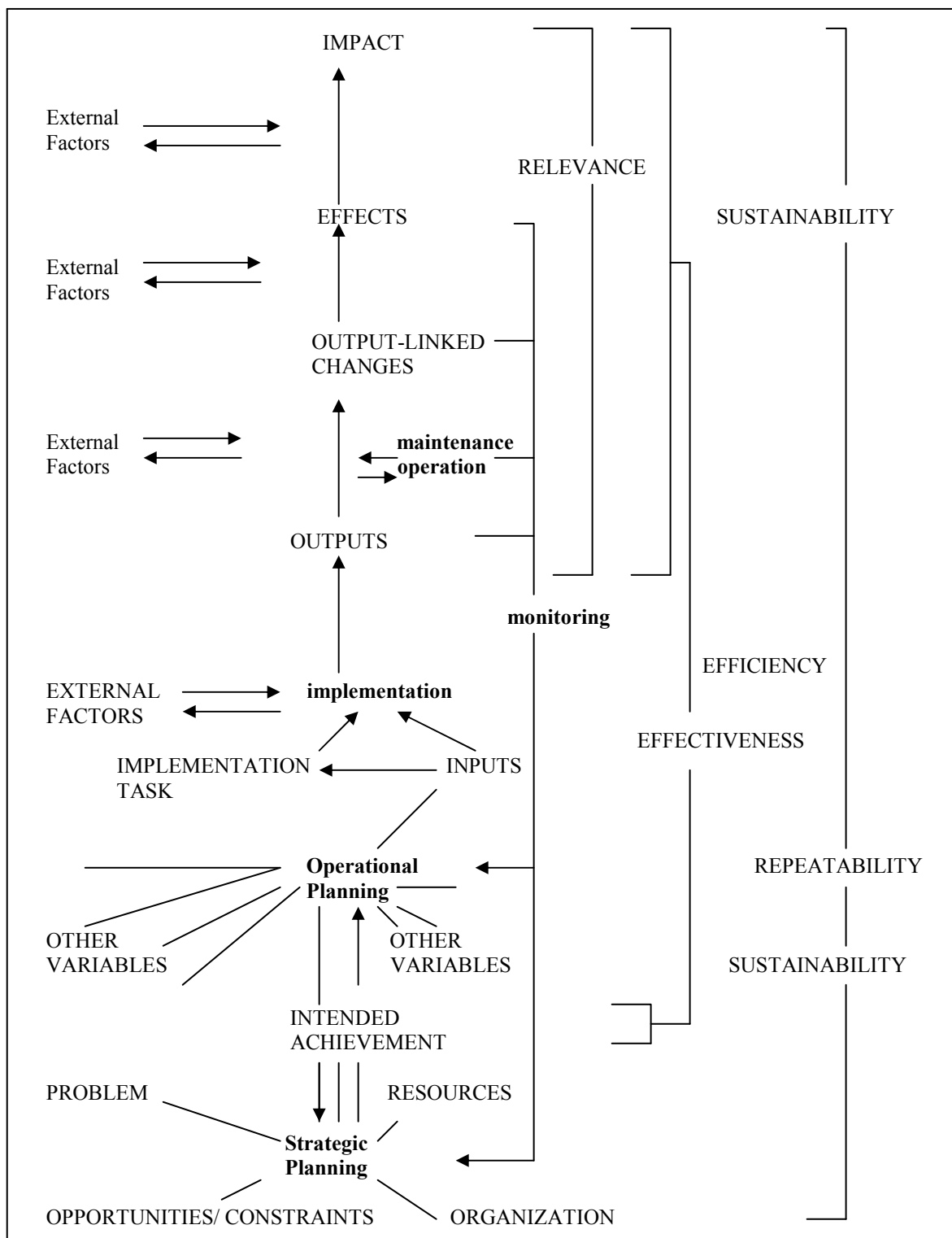
Source: Adapted from Dale (2004:76-78).

The addition of two criteria makes the model of the UNCHS more effective and complete. However, it remains flawed, in that environmental factors that may significantly affect evaluators, the process of evaluation, and the findings, are not considered in the evaluation process.

#### **4.4.4 Evaluation approach according to Dale**

Dale (2004:62) starts with presenting the importance of program/project environment. He found that in order to make a significant analysis of the quality of people's lives and the changes therein, involves assessing their living environment as well as the complex and unpredictable interrelations between people and a number of environmental factors. Those factors can be grouped under headings such as, cultural, social, political, economic, built physical (infrastructural), organizational, natural environmental, technological, etc. Development work (project/ program) is concerned with the creation of benefits for people through interaction between the organization and aspects in the environment of the organization. The intended beneficiaries may belong to the organization or be outsiders, but involved in the interaction. In the phase of implementation, evaluation that is undertaken in a collaborative way takes into consideration opportunities, threats and constraints that the planners may have confronted in different ways during the phase of planning. These external environmental factors may significantly influence the implementation and achievements of the development program/project. For this reason, Dale (2004:76) suggests a framework of evaluation of development work, establishing relationships between environment, management and valuation (Figure 4-5).

**Figure 4-5: A framework of evaluation of development work (programme and project)**



Source: Dale (2004:76).

Analytically, Figure 4-5 indicates that a meaningful evaluation of development work has to take into consideration planning, implementation and monitoring. Planning is a process of problem analysis, assessment of potential measures to address specific problems and decision-making for action, focused on those problems. Implementation is the process of transforming inputs (allocated resources) into outputs required to achieve the objectives of the specific development thrust (program or project). Monitoring is a continuous or regular assessment of implementation and outcomes (Dale 2004:24).

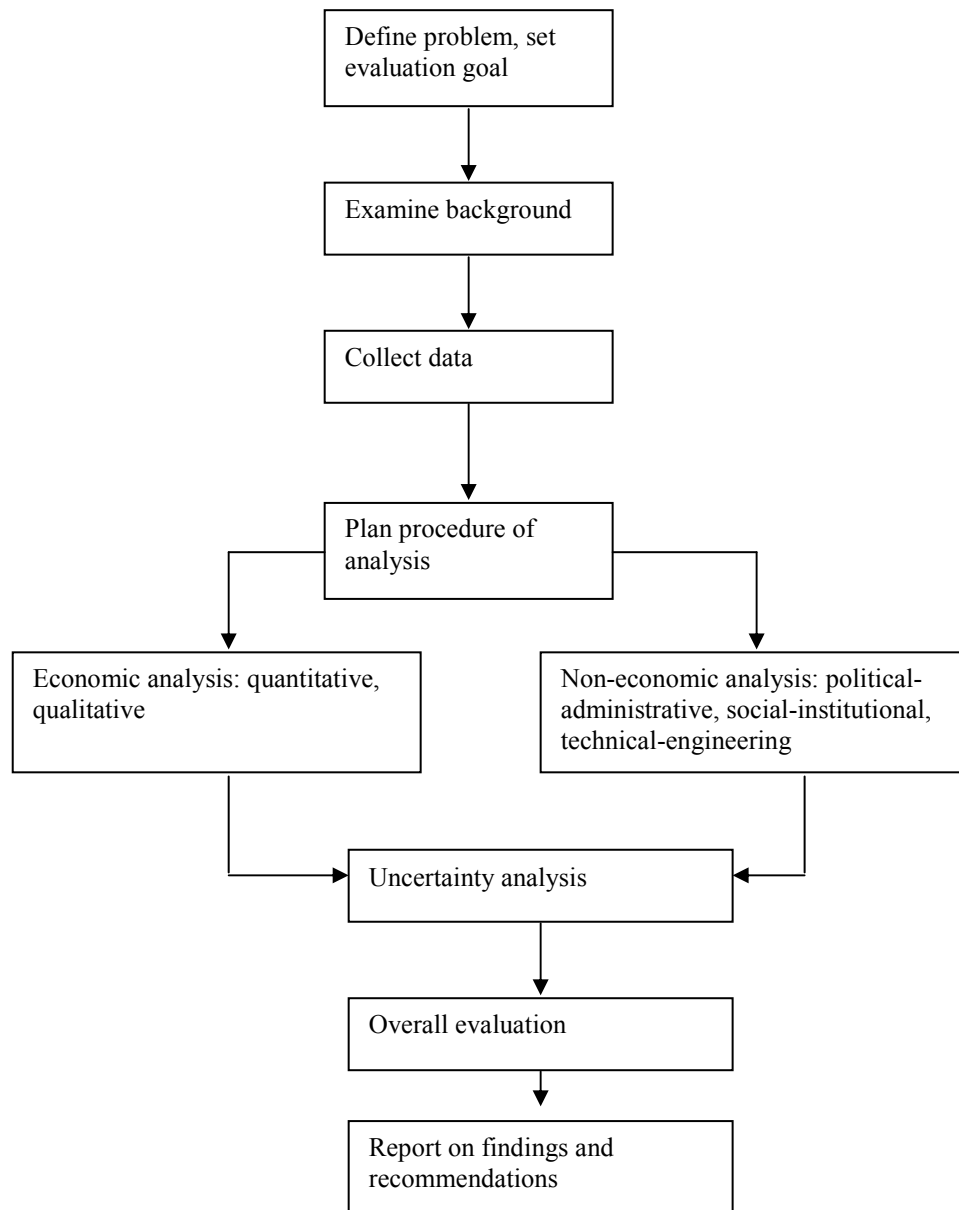
In his model, Dale (2004:74) establishes relationships between strategic planning, operational planning and implementation. Strategic planning starts with identifying organization variables that include rules, culture, technology, systems, incentives, management, leadership, participation and coordination, capacity building and empowerment. He indicates opportunities and constraints and resources such as human, financial, material and physical, and defines the problem to be addressed. Operational planning gets inputs from the strategic planning and goes into more details to plan action, with intervention of different variables. Implementation is the transformation of strategic planning into action to create outputs. The work in progress is subject to monitoring. Although the program/project has to maintain the operation in desired conditions, external factors such as economic, cultural, political, technological, ecological, societal and institutional bring about changes to the effects and impacts.

Moreover, the model suggests undertaking evaluation from the beginning (strategic planning) to the end of the development work, using evaluation variables (criteria) that include relevance, efficiency, effectiveness, impact and sustainability, and repeatability (Dale, 2004:76-78). Even though internal factors can influence the program/project, it is largely influenced by external factors. That is why, the program/project environment analysis is very important during its lifetime. Dale (2004:61) adds that the systemic approach can be used to depict the situation, clearly drawing the boundaries of internal and external elements of development work. As Dale (2004:69) indicates, dealing with increased diversity challenges management, particularly in the areas of coordination and leadership, which involves motivation, informal guidance and inspiration.

Supporting the evaluation model of Dale, Sang (1995:168) highlights that an integrative framework of project evaluation includes the following elements: definition of the problem and setting the goal, study of the background, data collection, planning of evaluation analysis,

undertaking of economic analysis, assessment of non-economic consequences, undertaking of uncertainty analysis, evaluation of the overall merits of the project and production of report on findings and conclusions (Figure 4-6). The new element that Sang introduces, in addition to the project management and the environmental analysis, is the evaluation methodology.

**Figure 4-6: integrative framework of project evaluation**



Source: Sang (1995:178)



The lesson to be learned from this literature on evaluation approaches is that project evaluation and project management are inseparable, because a project evolves throughout its life cycle and effective evaluation needs to be conducted during the project's entire existence, using different evaluation approaches and their corresponding appropriate methods. This helps to achieve a well-planned, participative and integrative evaluation involving all key project stakeholders and taking into consideration their viewpoints. Very little was however said about the systemic thinking approach, which is important to analyze interconnectedness and relationships between various stakeholders and their environments. With the exception of Dale (2004) and Sang (1995), who put a strong emphasis on environmental factors in evaluating programmes or projects, most authors involved in developing evaluation approaches overlooked those two aspects (systemic approach and environment) that can significantly influence evaluation. These two elements should have been much more developed by authors. Leadership and project life cycle were not mentioned in the evaluation process. Moreover, the literature did not explicitly mention the strong relationships between evaluation and management. Although the literature did not specify particular approaches as the most appropriate for specific project phases, it did provide a wide range of approaches from which evaluators can select the ones, suitable for their evaluation purposes and to the context of their projects. The literature directed evaluators towards the nature, form and purpose of evaluation, evaluation context, evaluation methods for data collection and analysis, participants in evaluation and users of evaluation findings.

#### **4.5 PARTICIPATORY EVALUATION**

As Sang (1995:9) stated, various decision-makers may need information of project evaluation for different purposes. For example, in public projects, the users of project evaluation may include planners, administrators and financial institutions. For the planners, project evaluation is important because they need to draw up social and economic programs, establish priorities among projects, and coordinate sectoral and intersectoral relations and programs. Administrators are concerned with social and economic fields. Project evaluation provides them with relevant information for the managing of sectoral, regional and national economies through supervising, monitoring and assessing the performance of enterprises. The information gives details on the fulfillment of their targets, shortcomings and merits. For financial institutions, project evaluation provides the information they need for preparing programs of financing and investment, allocating financial resources, particularly among mutual exclusive projects, and ensuring adequate returns on investment and timely repayment of loans. Project evaluation becomes an

important step for agreement, when financial aid from international institutions or foreign agencies is needed. The inadequacy or the lack of project evaluation can be a serious obstacle to the flow of investment or financial assistance from abroad.

As mentioned above, a project's evaluation starts from its very beginnings and continues during its implementation and even after its closing down, and involves all key stakeholders throughout its lifetime. According to O'Sullivan (2004:24), this collaborative evaluation approach is used interchangeably with empowerment or participatory evaluation. O'Sullivan (2004:23) argues that reliable evaluation findings are a result of collaborative evaluation, which actively involves all project stakeholders during all evaluation stages. Feek (1988) and Guba and Lincoln (1989:40-41) strongly support that evaluation is closely linked to the interests of the group pressing for the evaluation to take place. The group's interests influence focus and design of the evaluation.

O'Sullivan (2004:23) maintains that collaborative or participatory evaluation increases the stakeholders' understanding of the program/project and enhances their ability to conduct evaluations. It leads to improved quality of data (information gathered) and report writing and it increases access to information and evaluation resources. O'Sullivan (2004:27) holds that program/project staff members are likely to ignore the findings of evaluation because they do not understand them or they have not been involved directly in the process of evaluation planning and implementation. He goes on to say that distanced evaluators who conduct distanced evaluation fail to involve program/project stakeholders in the evaluation and therefore limit the chances that their findings might have a positive influence on the project.

Oral et al. (2001) add that project selection and project evaluation are considered as collaborative processes aimed at reaching consensus in collective decision-making, in spite of the complexity of processes of negotiation. This complexity often poses a challenge to the project when it is in the process of designing decision-making models and has to integrate the conflicting objectives of various stakeholders. In this regard, Mackay and Horton (2003) highlight the importance of soft issues such as communication, negotiation and facilitation processes because poor timing, complexity and unnecessary length of project reports, unclear technicalities of language, and inadequate evaluation reports, have long been acknowledged as factors that discourage the use of evaluation findings. O'Sullivan (2004:39) maintains that in particular evaluation situations, those approaches that involve leadership and decision-making responsibility are likely to lead to a

meaningful and realistic evaluation. Soumelis (1977:65) strongly emphasizes that evaluation, designed and implemented in a systemic way, is more likely to be successful than projects which lack integrating systems thinking in their evaluation processes, and which fail as a result. .

It is agreed that participative evaluation implies collaboration and involvement of stakeholders. However, participation could not be achieved if the project leadership was not strong enough to motivate people to perform the right job in the right way, solve conflicts in time and empower them with skills, knowledge and resources. Empowerment also implies participation of all stakeholders in the decision-making process and delegation of some authority and responsibilities of project leaders to subordinates. The degree of participation can be determined by the project life cycle because each phase of the life cycle has its own specific forms of evaluation, decisions and technical requirements. Evaluation is different from one phase to another, depending on its purposes and on stakeholders' perspectives, roles and responsibilities. For this reason, not every stakeholder is expected to be involved in the project all the time, in the same way, and to the same extent, because the requirements of particular phases of the project may need his intervention to a limited degree. However, his general involvement remains needed in all phases throughout the project life cycle – but not to the same extent. Why, and the degree to which, stakeholders' participation is needed in particular phases, is determined by factors in the project environment and a clear identification of stakeholders' needs, interests, expectations, roles and responsibilities. The implication of stakeholders' participation in all the processes of evaluation is to plan and implement successful projects.

#### **4.6 THE PROCESS OF EVALUATION**

As there is a range of evaluative techniques that can be used to assess processes and results at individual, organizational and large system levels, evaluators are in need of selecting appropriate but mixed methods because there is no single method of data collection which is considered as fully satisfactory and capable of providing the complete story of all the complexities of a program, operating in a rapidly changing environment (Mackay and Horton, 2003). The choice of appropriate evaluation approaches depends on the evaluation purpose and on the audience. The type of evaluation indicates the nature of the research (quantitative or qualitative) and the methods that will be used for evaluation design, data collection and analysis. Evaluation may be formative or summative (Wells, 2007:12). The characteristics of each evaluation process are presented in Table 4-6.

**Table 4-6: Characteristics of formative and summative evaluation**

Formative evaluation	Summative evaluation
<ul style="list-style-type: none"><li>• Provides information about the program or project improvement</li><li>• Generates regular reports and allows information to be quickly shared</li><li>• Put the focus on program or project activities, outputs and short-term outcomes</li></ul>	<ul style="list-style-type: none"><li>• Provides information of the program or project results</li><li>• Generally ends up with producing a final report</li><li>• Put the focus on the long-term outcomes and impacts of the program or project</li></ul>
Objective-focused questions: <ul style="list-style-type: none"><li>• What did the organization do to promote the program or project?</li><li>• Did participants exhibit interest in the program or project?</li><li>• Are participants satisfied with the program or project?</li><li>• How is the program or project changing the attitudes of participants toward the community?</li></ul>	Goal-focused questions: <ul style="list-style-type: none"><li>• Did the program or project achieve its goals for a great number of participants?</li><li>• What changes made in the participants' knowledge of their community?</li><li>• Did the program or project participants demonstrate a good understanding of how changing behavior is important to the community at large and to their lives in particular?</li></ul>

Source: Wells (2007:13).

#### **4.6.1 Formative evaluation**

According to Dale (2004: 33), formative evaluation is aimed at improving the performance of programs and projects, which are evaluated throughout their existence and through continual learning from empirical experiences. For typical projects, significant formative evaluation is usually done if the schemes (programs or projects) are broken up into phases, which are each preceded by planning events. Information generated during each event through an assessment of preceding phases, can be used for the next phases. Flood (1999:142) argues that formative evaluation is normally associated with the processes of decision-making, problem solving and strategic planning. Worthen and Sanders (1987:34) state that formative evaluation is conducted during the programme's implementation to give programme directors the evaluative information that will be useful to improve the programme. The information, generated through formative evaluation of a project or programme in progress, is used to enhance the impact of the project or programme in terms of the specified improvement.

Wells (2007:12) holds that formative evaluation starts in the early stages of a project and is used to make decisions in relation to improvements or changes during the project implementation. Frimpong (2003:121) argues that a good starting point of the evaluation process would be to break down the work to be undertaken. The Work Breakdown Structure (WBS) is used as the source from which all controls and costs originate and provides a framework for monitoring

evaluation. As the work progresses, one compares time, costs, and schedule performance against the budget established during the stage of project planning for each level of WBS. Monitoring evaluation purposely, presents the project planners and managers with feedback in the form of reports that clearly identify deviations from the project plans, schedule and budget. An effective control system for schedule and cost does not wait to kick in until the beginning of implementation, but takes place throughout the project life cycle. It involves work planning, good estimation (in terms of costs, time and labor), clear definition and communication of work scope, authorization and a restricted budget, timely accounting of cost expenditures and physical progress, periodic re-estimation of cost and time to complete residual work, regular comparison of actual progress and expenses to budgets and schedules at the moment of comparison and at the end of the project. What Frimpong is saying is that the quality of project planning has a significant impact on the value of the project implementation and evaluation.

Dale (2004:47) adds that formative evaluation is done through participatory assessment as in the case of the Hambegamuwa Area Development Programme (KOHAP). KOHAP was a sub-program within the Moneragala District Integrated Rural Development Programme (MONDEP) in Sri Lanka (India). KOHAP addressed many development issues such as roads, several feeder roads, school buildings, irrigation facilities, offices for local and administrative staff, and health centers. Local inhabitants enjoyed substantial participation in the planning phase, and in some cases they participated in the construction of buildings. During the implementation of these infrastructure projects in the KOHAP program, local people were requested to organize themselves for monitoring the work done at infrastructures by contractors and through the assistance of government agencies. Local communities received the idea with enthusiasm and established special committees to undertake the task. The mechanisms that they used for monitoring involved frequent visits to the sites of construction and reporting to the implementing organs, namely MONDEP leadership, about any problems they found but could not settle themselves. For example, a few cases of malpractice were reported to MONDEP. In the course of action, people participated in continuously improving the quality of their infrastructure facilities, although in some cases they had a lot of disagreements, especially on irrigation works.

The case of KOHAP is a good example of effective formative evaluation. It was participatory because it involved all key stakeholders in various projects of the sub-programme from the stage of planning onward and facilitated the flow of information among them. They were empowered

with the capacity of monitoring their projects and solving problems when they did occur. This means that all of them could potentially be equally aware and have the same understanding of problems. However, the degree of participation could be limited by the level of knowledge and skills of participants. This is the problem that development projects often encounter. Important issues to be addressed sometimes appear too technical for some stakeholders to take part deciding on them or, alternately, the situation may be so urgent that all stakeholders cannot be consulted. However, in the latter case, stakeholders should be informed about decisions made.

As Mackay and Horton (2003) indicate, formative evaluation provides the program staff with information on areas that need improvement. It is normally conducted during the program implementation, and it is generally carried out by those in charge of the program being evaluated. The effective involvement of the program staff and other key stakeholders can improve the quality and quantity of information collected, and enhances the analysis and interpretation of results. Wells (2007:12) highlights that organizations use formative evaluation for internal purposes, but it may well prove useful to the project funder when he wants to check whether the project is providing direct benefits to the intended beneficiaries. Formative evaluation often provides quarterly or monthly reports about the achievement of project objectives, the completion of project activities, the measure of participants' progress and assessment of staff performance.

Formative evaluation involves also identifying and structuring performance indicators. As the Public Health Agency of Canada (1996) indicates, performance indicators and their measurements establish a direct link between project goals and objectives. They are the foundation for determining reasonable and measurable criteria. It is on basis of those criteria that project stakeholders should assess the extent to which they have achieved their goals and objectives. The Public Health Agency of Canada (1996) argues that after clear project goals and objectives have been established and activities identified the success indicators should be developed as soon as possible. It is the duty of the sponsors of the project to identify appropriate and realistic indicators. Structuring success indicators constitutes the second step in the process of making project plans of high quality.

The Public Health Agency of Canada (1996) maintains that success indicators are those which:

- Are measurable (qualitatively and quantitatively) and focussed on results really attributed to the project activities not to other factors.

- Are feasible and subject to challenge.
- Provide a true means of comparison between plans and results.
- Are limited with focus on the key areas of interest and provide relevant information and a reasonable assessment of the project success.

In the beginning of a program or project, formative evaluation indicates and suggests areas of project adjustments required for providing better services (O'Sullivan, 2004:61). During the implementation, formative evaluation is useful to assess an improvement of a program or project (O'Sullivan, 2004:3). Towards the project's end, formative evaluation provides information that can create a better understanding of what it did to achieve its outcomes (O'Sullivan, 2004:61).

#### **4.6.2 Summative evaluation**

Summative evaluation is undertaken after the completion of the respective development schemes. The main purpose of summative evaluation is to assess the merit of programs and projects with regard to design and management. The findings from that evaluation can be used for learning and contribute to the planning and implementation of other or similar development endeavors (Dale, 2004:34). Summative evaluation is undertaken to determine the program or project achievements and the changes that it has made in terms of desired outcomes, for instance improvement of life quality of the stakeholders (O'Sullivan, 2004:61). Summative evaluation gives a summary statement of the effectiveness, value and impact of a program. A summative evaluation is typically undertaken after the project's completion or after its stabilization for the benefit of the decision-makers and external audience (Mackay and Horton, 2003).

Flood (1999:142) states that summative evaluation is linked with accountability or research. Summative research reflects back on projects or programmes that are underway or that have been concluded. Worthen and Sanders (1987:34) indicates that summative evaluation is undertaken at the end of a program to give potential consumers the information required for assessing the programme's merit. Summative evaluation seeks to consolidate what has been learnt during the implementation of project or programme.

Dale (2004:34-35) argues that the immediate concern of summative evaluation commonly is to assess the accountability of bodies responsible for the project, and funding agencies. In practice, most summative evaluations result from the need among foreign donor agencies to establish

their accountability towards their money providers, governments and the general public in donor countries. Therefore, summative evaluations tend to be undertaken by persons who feel they are independent with regard to donor agencies as well as with regard to project organizations involved. For O'Sullivan (2004:3), the focus of summative evaluation is on project impact at the end of the project.

A difficulty with summative evaluation is that a project may have remarkably positive effects but can, over time and through factors beyond its control, be negatively influenced, and have to make changes. Under such conditions, it becomes hard to draw definitive conclusions regarding its contribution to desired outcomes. Another problem is that, at the beginning of a program or project, most people are not optimistic concerning its potential achievements (O'Sullivan, 2004:61). This negative attitude can be an obstacle for true cooperation between stakeholders.

O'Sullivan (2004:62) asserts that summative evaluation becomes problematic in the case of multisite programs, or projects with many sites. In that case it is difficult to tackle the overall implementation of a project, because various sites probably implement the same program or project, and most likely with different results, due to environmental differences. Hence, on some sites the project may be judged effective, whereas on other sites it is seen as a failure.

As Wells (2007:12) indicates, summative reports are fundamentally based on information, that is systematically and regularly (quarterly or monthly) produced over the period of the project implementation. Summative evaluation may collect data throughout the project life cycle, but the results are commonly used at the end to create appreciation of the impact and success of the project, and with reference to its goals and objectives.

The National Agricultural and Livestock Extension Rehabilitation Project (NALERP) is an example that shows the relationship between summative and formative evaluation. The NALERP was conceived in 1987 by the Government of Tanzania with a budget of UA 21.78 million, and co-financed by the International Development Association (UA 13.03 million), the African Development Fund (UA 6.52 million), and the Government of Tanzania (UA 2.23 million). UA is a unit of account. The key aspects of extension included training, logistics, supervision and linkages with other knowledge and input systems. The project was designed to revive and rebuild the livestock and agricultural extension services through human resource development and capacity building, and institutional rehabilitation. The project was



implemented in 1989 and completed in 1997. The implementation completion report was prepared in May 1998 and published in July 2004 (Operations Evaluation Department, 2004).

Technically, the project was adequately formulated because it had been designed within the framework of reforms of the national macroeconomic policy. However, environmental factors were not analyzed and planned, and no particular system was put in place for monitoring the environmental impact or analyzing the extent to which technologies were adopted to protect the environment. In area of civil works, cost overruns were noted and these were particularly due to long delays in the implementation of contracts, and the retendering of works after they had been inefficiently performed. The prices for equipment and furniture items increased and more funds were needed. Delays in procurement and execution of the project activities were recorded and were mostly attributed to inadequate administration, which was characterized by procedures that took a long time for documents to be signed and approved (Operations Evaluation Department, 2004).

Regular visits were scheduled to contact individual and group farmers. But supervision at all project levels was negatively affected by the lack of operational funds, and shortcomings in the training of, and visits to, farmers were blamed on inadequate financial and human resources. The project designers knew there was this problem but they moved the project ahead, assuming that the Government of Tanzania would deal with it by maintaining the annual flow of budgetary resources for the project at no less than 4% over the project life. But the Government failed to keep its commitments (Operations Evaluation Department, 2004).

Regarding the project outputs, it was estimated that in the year 1988/89 the project would produce 3,000 tons of cashew nuts, 1,800 tones of paddy, 7,600 tons of coffee, 99,000 of maize and 31,000 tons of seed cotton, which represented a projected economic benefit of US\$ 30 million. However, the report did not provide sufficient information on how these figures were obtained. No baseline was done before the project started and no monitoring was carried out to compare the project areas of performance and non-performance (Operations Evaluation Department, 2004).

From this case, it is clear that most of the information, contained in summative evaluation, is gathered from monitoring reports, which are regularly produced. There is therefore a close link between formative evaluation and summative evaluation. Missing, incomplete, or biased

information from monitoring evaluation can affect the quality of the summative evaluation report which constitutes a treasure of lessons gathered for the good of existing and future programs and projects, because the report consolidates all relevant historical events from the beginning to the end of the project.

In the case of NALERP, shortcomings were manifest. The project planning had been inadequate because it was not able to include important elements such as environmental factors, financial resources and effective involvement of stakeholders. This may be one of the causes for difficulties experienced by NALERP during implementation (poor contracting relations, lack of resources, etc). Regarding evaluation, the summative report indicates there were weaknesses in monitoring reports which provided incomplete information on the project's progress. Although summative evaluation would have been used, other methods of data collection such as interviews, observation, and a documentary review of monitoring reports, could have been a rich source of relevant information for building up a reliable historical account of the NALERP. The lesson learned from this case study is that the process of formative evaluation should be adequately carried out from the beginning, integrating all key stakeholders involved in evaluation, and appreciating the need for, and the importance of, documentation from reports, not only for the benefit of the ongoing project, but also for the good of other existing and new projects.

## **4.7 EVALUATION PROBLEMS**

In their inquiries, Sang, Wells and Dale tried to find out what problems and failures are usually encountered in program and project evaluation. They found that those problems were related to inadequate evaluation in the early stages of projects and waste of resources (especially in developing countries). Another problem is resistance to evaluation along with unethical issues in relation to evaluation that pose an obstacle to the generation of reliable information.

### **4.7.1 Project evaluation in developing countries**

As Sang (1995:16-18) indicates, international organizations and agencies have largely contributed to the application of project evaluation techniques in developing countries, because realistic project evaluation is regarded as a pre-condition for the international financing of development projects. Technical assistance begins with and is founded on evaluation activities.

In fact, all the projects in developing countries that are financed by international organizations or agencies were carefully evaluated, contrary to the small number of domestically financed projects, which were evaluated by consultants who came from overseas, but were hired by local governments or via technical assistance agreements. Hence, many development projects in developing countries were not satisfactorily evaluated before their implementation, because they did not request international support. As a result, waste of resources and irrationalities were common and included even in investment procedures, although many efforts were made to achieve rational, optimal and comprehensive planning. A number of these countries did not have any experience regarding project evaluation practices. Their ordinary ways of deciding on investment issues were primarily based on partial investigation, and on political, social and administrative considerations, instead of on full financial and economic calculations. The lack of local experts in project evaluation resulted in the hiring of external consultants whose services were very expensive.

Another problem, met by Sang (1995:19) in regard to project evaluation, was the inadequacy of statistics and of other information needed for detailed studies of projects as in the case of NALERP. It was also observed that most projects in developing countries are not institutionalized because projects are evaluated and selected on an ad hoc basis without establishing a formal setup. Furthermore, methodologies and procedures for the adequate project evaluation that international aid agencies proposed are generally too time-consuming for, and demanding on, local resources, and too complicated and sophisticated for developing countries to use in cases where there is no presence of international aid agencies.

#### **4.7.2 Resistance to evaluation**

Wells, (2007:11) observes that government agencies and non-governmental organizations are increasingly focusing on project or program outcomes, organizational improvement and cost efficiency because of increased competition for decreasing funding, and on the use of business models which imply a move towards accountability and which reflect the desire of society to see people visibly benefiting from social program or project. Wells (2007:5-7) found that this is the reason why people resist evaluation. They perceive evaluation as a way to judge them, to reveal areas of project success or failure, and they fear that failure would result in punishment, for instance, the cutting of funding. They suspect that funders force them to do evaluation for their own benefit, rather than for the good of other stakeholders. They believe that money, spent

on evaluation, is diverted from direct services to the client and that it would be better spent in assisting others. Naturally, people don't like statistics, especially if they reveal a point of failure that could have consequences. People perceive evaluation as consuming time that could be spent better. They also don't like to do things in a way that to their mind is not right. .

#### **4.7.3 A case of unethical issues encountered in evaluation**

Problems of ethics arise particularly in data collection and reporting. Dale (2004:9) gives an example of such a situation from his own experience. He was made responsible for agricultural development projects in West Africa. Evaluation was high on his list of priorities and he soon began to undertake evaluations of programs and projects, which he was to continue throughout their life cycle. Although it was difficult for him to evaluate large scale projects, especially to do so during the windy and rainy season, he expected that cooperation with others would solve his problems. After all, evaluation was supposed to be participatory and go beyond technical, economic and social-economic considerations.

However, in the practice of evaluating agricultural development projects, he came upon serious ethical issues. He was informed that evaluators normally kept evaluation information to themselves and that the same was expected from him. But this external influence meant that he would be deprived of the exercise of objectivity and independent judgment. His evaluation would not be realistic because evaluators used to re-invent the program or project theory in order to find out what would work well, instead of concentrating on programs and projects as planned by those in charge. He confirmed that evaluation problems often resulted from the failure to make a difference in real world situations but he suspected that his own views would not fully match those of the majority of his fellow evaluators, although he did not dare to openly formulate such a concern. For him, however, "the objective of evaluators should be identical with that of planners and implementers: create sustainable benefits for the target groups of projects, programs and policies". He knew that evaluators should be part of a team of actors, who work together for a common purpose. But he was convinced that evaluators do not necessarily go along with the objectives, pursued by the beneficiaries, planners and implementers, although this is the case in most projects and programs.

Although Dale does not reveal what he did to cope with the corruption surrounding the project evaluation, he does make clear that there is a need to question the credibility of information from

evaluation reports, the production of which may have involved unethical practices. That is why all the different approaches of evaluation mentioned in earlier sections should be carefully considered in order to decide on the best way of conducting worthwhile and reliable evaluation.

As far as the GADP (Chapter Seven) is concerned, the project suffered from non-transparency in the communication of information from evaluation reports. This could well be because the evaluation was not undertaken in a systemic way. It was conducted from the perspective of a small range of stakeholders and without clear purpose. The GADP environment, which was not favorable, was not considered in the evaluation process. The GADP evaluators were not qualified enough to carry out such an important activity and the methodology they used to collect data was inadequate.

#### **4.8 CHAPTER SUMMARY**

Chapter four was designed not only to bridge the gap, made apparent in Chapters Two and Three, between management and evaluation, but also to get insight into answers to research questions posed by the current study. The research question in relation to project management and evaluation helped to select appropriate theoretical and practical materials, which were useful to link management and evaluation. As stated earlier, there is a close relationship between management and evaluation. Management involves activities such as project planning, organizing, implementing and controlling, which are carried out to achieve the project objectives, using available resources. Evaluation is conducted to check whether these management activities have been done as planned, for example, to see if resources have been efficiently used to achieve the project objectives. That is why the critical success factors (CSFs) are also applicable to the process of project evaluation as mentioned in Chapter Three, which presents the environment analysis, stakeholder analysis, partnership, project life cycle, leadership and systems thinking. The inadequate – or lack of – use of these factors in evaluation processes brings about poor evaluation.

However, from the literature on evaluation, it appears that project managers and leaders try to carry out management and evaluation activities separately and independently of one another, whereas these activities should go hand-in-hand throughout the project's life cycle in order to ensure its success. It is the lack of integration of systems thinking into management systems that does not allow project planners and implementers to establish a strong link between management

and evaluation. As a result, the influence of the environment on the project success is overlooked by many authors, who considered evaluation from different perspectives. That is why they designed a range of evaluation models (approaches), each of which has its own weaknesses. When taken seriously, the systems thinking approach and environmental assessment are helpful in the planning of successful projects and in the carrying out of effective evaluation. Another important element overlooked in the literature on project evaluation is leadership. As seen in Chapter Two, leadership is one of the most decisive factors for the project's success and should intervene in the areas of management and evaluation with the aim of guiding and motivating people to do the right things in the right way.

For the benefit of project management, the process of effective evaluation should start with the project design so that formative evaluation process can begin through the proactive approach and continue using clarificative, interactive, monitoring and impact evaluations. Normally proactive and clarificative approaches can be used in the beginning to help design and plan a successful project. During the project implementation, interactive, clarificative, monitoring and impact evaluations can be used for more clarity on objectives and outcomes, assessment of project progress, improvement and impact, and problem-solving. At the end, summative evaluation is conducted through impact evaluation, which is used to assess the overall impact of the project and criteria such as relevance, efficiency, and effectiveness can be applied to check whether the project would have achieved its objectives had it made efficient use of resources and if, in that case, it would have met the needs of the project stakeholders. However, it appears that people believe that evaluation is an activity which can be left until the project implementation phase, and that reports need to be produced, only when they are asked for because sponsors need them, or if there is a need to justify the reasons for an additional budget or resources – not necessarily however, for the benefit of improving the quality of the project management, for instance in terms of efficiency and effectiveness. Each of these different kinds of evaluation requires collecting data, but in various ways. A number of authors involved in project evaluation provided a wide range of approaches that can be used to gather data, which are appropriate to specific evaluation types, depending on its purposes and the organizational context. Appropriate methods of data collection and analysis can be selected to provide information that can meet the needs of potential users. The methodology is not dealt with in this chapter. It does specifically belong in Chapter Five, where appropriate research approaches and methods are presented for data collection and for analysis in relation to the case study of the GADP.

## **CHAPTER FIVE: RESEARCH DESIGN**

This chapter explains the concept of research design and discusses qualitative approaches, qualitative methods, and ethical considerations. Data collection and data analysis are also considered.

### **5.1 DEFINITION OF CONCEPTS**

#### **5.1.1 Research design**

According to Flick (2007:36-37), “Research design is a plan for collecting and analyzing evidence that will make it possible for the investigator to answer whatever questions he or she has posed. The design of an investigation touches almost all the aspects of the research from the minute details of data to the selection of the techniques of data analysis”. Stephen and Thomas (2007) state that multi-methods are used in research design, given the heterogeneity of knowledge. Jennifer (2005) adds that the aim of a mixed-method way of thinking is to get a better understanding of a phenomenon and to integrate difference and diversity in their natural setting.

#### **5.1.2 Qualitative research**

Qualitative research is specifically a way of determining peoples’ opinions and attitudes and answering questions such as “ why” and “ how” (Coldwell and Herbst, 2004: 13). Dale (2004:137) states that a qualitative approach is required in the following situations:

- When the researcher is studying complex processes, which involve interrelated factors. These factors generally characterize societal changes and include, for instance, economic, cultural, social, technological and ecological aspects.
- When the researcher seeks to analyze organizational matters, sustainability and reliability of a program or project;
- When the researcher wants to explore issues and explain findings from the perspectives of research participants.

Ghuri et al. (1995: 85) argue that qualitative research is undertaken in a natural location and is aimed at forming a complete picture of the situation and a better understanding of it. The researcher prepares his final report and interprets the findings of his study from the perspective

of participants in the research, considering their values. In doing so, the researcher gathers deep data and makes the results more credible.

## **5.2 QUALITATIVE AND QUANTITATIVE RESEARCH**

The main goal of studies using the qualitative approach is to describe and understand, rather than explain human behaviour. In the process of qualitative research, which is undertaken in the natural setting of social participants, the researcher is regarded as the key instrument. The main objective is not to generalize the findings of the study of social action but to understand it in a 'native' way, in terms of specific context and from the perspective of the social actors (Babbie and Mouton, 2002:270; Routledge, 2006). The researcher is not much concerned with accuracy of the information because he seeks to verify it step by step with informants or through triangulation, which is achieved by means of using various sources of information (Dale, 2004:131). Neither is the researcher much preoccupied with quantified information, which is expressed in numbers. Thus, data are entirely or largely explained qualitatively, that is, in verbal terms (Dale, 2004:137 and Merriam, 2009:18).

A design of quantitative research uses a positivist approach, an approach that is objective and based on numbers, statistics and experimental control to quantify phenomena (David, 2007). The purpose of quantitative studies is to develop generalizations, which contribute to theories and enable researchers to better understand, explain and predict some specific phenomenon (Dale, 2004:131). Coldwell and Herbst (2004:15) state that primary data are collected from a large sample of individual units because the researcher wishes to project the results onto a larger population.

The difference between quantitative and qualitative research is not a matter of quality but of procedure. Qualitative methods are used when the researcher wants to reveal and understand a phenomenon under investigation and about which there is little existing knowledge (Ghauri, and Grønhaug, 2002:86-87). In quantitative research, data are collected by using questionnaires or surveys and these are quantitatively analyzed by means of predetermined instruments i.e. numerical methods. In qualitative research on the other hand, data are collected in an open-ended loose way (Partington, 2002: 100-101 and Coldwell and Herbst, 2004:13).



According to Dale (2004:137-138), qualitative research allows a participatory approach that involves a broad range of stakeholders and participatory methods. This is not the case in quantitative studies for which a highly standardized approach is required to allow for suitable statistical analysis.

### **5.3 ADVANTAGES OF QUALITATIVE RESEARCH IN THE CASE OF THE GADP**

Given the advantages of the qualitative approach as mentioned above, the researcher of the current study found the approach useful to get a better understanding of the case of the GADP on which he had very little information when he began the study. The failure of that project could not be explained by a statistical analysis because of its complexity and the aspects of uncertainty that typified the project. In fact, the GADP involved various stakeholders such as farmers, government authorities and international organizations that had different cultures, social and economic interests and expectations. Political, economic and physical environmental factors significantly influenced the achievement of the project objectives. The political climate involved security, governance, and democracy issues. The economic environment included inflation and exchange rate fluctuations, while the physical environment integrated weather in terms of rainfall patterns, droughts, floods and winds, the quality of soil, forests and water. The project resources, such as people, buildings, vehicles and equipment, along with soft issues such as management and leadership skills and experience, also had a considerable impact on the project planning and implementation.

Against this background, the qualitative approach turned out to be more promising and richer than the quantitative approach. It helped the researcher to explore more deeply and better understand the different complex issues and to establish links between them in attempts to answer research questions and achieve research objectives. The research process followed a number of steps, such as activities preliminary to data collection, data collection, and data analysis.

## **5.4 DATA COLLECTION**

### **5.4.1 Restructuring of the GADP performance and impact indicators**

Performance indicators were identified with reference to the objectives and components of the GADP. The process of evaluation was based on summative evaluation. Therefore, indicators were divided into two groups: performance indicators and impact indicators.

The performance indicators were used to assess the implementation (progress) of the GADP whereas impact indicators were used to evaluate the effect that the GADP had made on the project zone. These indicators, together with the literature review, were of great value for the process of data collection, particularly when the researcher prepared the interview instrument.

The evaluation planning done, the next concern was the field research. Thereafter, appropriate approaches to the study were selected, which included ethnography, phenomenology and field research.

### **5.4.2 Methods**

#### **5.4.2.1 Case study**

As the researcher had little information on the GADP and wanted to understand the complex situation faced by the project, the case study method was found justified because it helps to investigate complex social units, consisting of many variables that have potential value for the understanding of a phenomenon, and it results in a holistic and rich account of the phenomenon concerned (Merriam, 2009:50-52). In the process of data collection, the case study involves the use of various methods such as documentation review, interviews, surveys and observation, in order to answer research questions (Soy, 1996). Welman and Kruger (2001:183) highlight that the case study method leads to a comprehensive study of the units of study (individuals, groups, institutions or other social entities).

The GADP was not chosen in a vacuum. A number of reasons were considered. The GADP was a very large project as it covered a geographical area of 83,508 ha with 250,000 inhabitants and included 7 out of the 13 districts in Gikongoro Province (Bguyonb and GADP, 1993). Moreover, before the GADP was created, there had been other agricultural projects operating in Gikongoro

province. The GADP benefited from these projects' economic infrastructures and from the organizational structures they had established to meet needs of the local community.

The GADP also received considerable financial support from big international organizations. However, it faced serious problems in the following areas: complexity of the project due to too many activities; inability of identifying key stakeholders and adapting farming techniques to the needs of stakeholders; unstable environment; decline of the market for commercial crops; lack of bank loans, and deterioration of roads due to the lack of maintenance.

The selection of the project was based on its potential economic and social importance, the amount of financial support it received, and the involvement of powerful and varied stakeholders. Using the case study and data collection methods such as observation, interviews and documentary review, the researcher increased his knowledge of project management and evaluation and achieved a better understanding of the causes of the failure of the GADP in spite of its financial opportunities. This also led to ideas for potential problem areas that ought to be watched by other projects in order to protect their sustainability.

#### **5.4.2.2 Documentary review**

Much of the information that the participants could not provide was found in various written sources which provided input for the development of the literature review on project management, project evaluation and research design. Besides the documentary review through books, articles in journals and other published papers, and electronic resources, the internal reports from the GADP archives were also used. The GADP reports provided information on how the project was managed and evaluated, on problems of management and evaluation, and on unforeseen events that were obstacles to the achievement of the project objectives. These documents were in French and had to be translated into English.

The documentary review method was of great value for the study because it informs the researcher about what has already been done in his research field (Coldwell and Herbst 2004:31, Merriam, 2009:72), it leads to ideas for the justification of objectives, and for the formulation of the research problem, and lines of thought are found that may help to answer specific research questions or that indicate the importance, necessity or urgency of undertaking a study (Saunders, Lewis and Tharnhill, 2000:45; Merriam, 2009:72).

### **5.4.2.3 Interviews**

The conducted interviews included individual pilot interviews, individual interviews and focus group interviews.

#### **1. Pilot interview**

The pilot interview offers the researcher the opportunity to pre-test his first interview questions and check whether the interviewees understand the research problem and the interview questions before the actual interview sessions start (Ghauri and Grønhaug, 2002: 103). The main concern of a pilot survey is to assess the relevance of questions to the research problem and objectives. The researcher may decide to exclude a question if it does not clearly serve the study objectives, or else revise it. (Hackley, 2003:89).

After the researcher obtained the ethical clearance on the 14<sup>th</sup> March 2007, he started field research. Simultaneously, he approached some members of academic staff and students to check the content of the interview instruments. Their comments made him reformulate questions for a better understanding during interview sessions and in order to further enhance the quality of data to be collected. Some ambiguous questions were removed and others were clarified. The order of questions was also rectified.

#### **2. Individual interviews (first round and second round)**

In conducting interviews, a semi-structured interview was found to be a suitable method for the current research. It implies that the interviewer prepares a set of questions, which is further developed and aligned with the researcher's interests, as the conversation progresses (Rogers and Bouey, 1996:52).

Using this method, the researcher was able to develop questions related to the areas of his interest. During the interview sessions, the researcher played the role of a learner while the participants were considered as the experts and as better informed in their sphere of life. Individual semi-structured interviews were held with farmers, subcontractors of the GADP, managers and staff of the GADP and local authorities. These interviews were aimed at gathering data from individual participants with reference to their own experience and knowledge of the project. The researcher thus became a facilitator as he took notes from the discussions, which later were recorded on the computer. Individual semi-structured interviews also served to

counteract two drawbacks. Firstly, the researcher found it difficult to get people together at the same hour and willing to devote the same amount of time to the interviews. Secondly, some participants did not, for reasons of their own, feel free to express their opinions in the presence of other participants. In both cases, the slightly informal structure of the interviews was helpful.

The individual interviews were conducted in two phases. The first phase (March to May 2007) involved 33 persons, grouped into 5 categories: farmers (cooperatives and individual farmers), subcontractors, GADP managers and staff, and government authorities (regional and local authorities). The data collected needed to cover the whole study. Together with documentary analysis, these data provided the partial conclusion on what went wrong with the GADP.

The second phase of interviews (June and July 2007) involved 9 informants. They were grouped into four categories: farmers, subcontractors, GADP managers and staff, and government authorities (regional and local). These interviews were intended to offer the respondents an opportunity to check whether the researcher had kept his promises in the following areas: respect for their dignity, and anonymity as regards their identities and opinions during data analysis and in the publication of findings.

In this regard, the researcher had prepared a 16 page document with a synthesis of partial results from data collected in the first phase. These were presented to the informants for discussion. It took two weeks to gather data. The objective was to reassure them that their opinions had not been distorted in the process of data analysis. At the same time the informants were given a chance to provide additional or forgotten information that might enhance the quality of the final results of the study. It was on the basis of these final results that interpretation took place with a view to publishing the findings. At the end of the second phase of interviews, clarifications and new ideas were provided to give the big picture of the GADP. As an example, some respondents suggested that the project should be designed and implemented from their perspective.

### **3. Focus group interviews**

From the 2<sup>nd</sup> to the 3<sup>rd</sup> July 2007, the focus group sessions were organized with 6 persons willing to attend the sessions which were, according to participants' availability, held at different times. The interview instrument, which had been used for the individual interviews, was also used for the focus group interviews. At the first session, the group consisted of 4 participants: 1 employee

of the GADP and 3 farmers from the cooperative UNICOOPAGI. At the second time, 2 employees of the GADP were involved.

The focus group interview was judged a suitable method for the study because it is usually conducted with a small group (six to eight people) focusing on a particular topic (Flick, 2009:195). The purpose is to analyze common processes of problem solving in the group in order to discover the best strategy for solving it through a discussion of alternatives (Flick, 2009:197). The participants discuss the area of investigation openly with each other, in a friendly way (Andrew, 2008). The method is particularly interesting when the researcher is not aware of all the issues that are associated with his topic of research (Hesse-Biber and Leavy, 2006:196).

#### **5.4.2.4 Direct observation**

During the period of field work, the researcher took notes of observations in the field journal. The observations consisted of looking at the physical environment such as hills, forests, valleys, farm land, pasture land, and crop fields. It furthermore involved looking at people's livelihoods such as cooperatives, their attitudes towards their work, their resources, main crops and livestock, shelter and clothing. These elements indicate the level of lifestyle and development of the community. It was in such circumstances that photos were taken. Observation gave the researcher an opportunity to check whether the documentary information from the GADP reports, the opinions of people expressed in interviews and the photos coincided in confirming the same reality. For example, the opinions of interviewees and the field work photos confirmed and indicated the role played by people in the degradation of soil and in erosion, factors that contribute to increasing poverty in Gikongoro.

Participant observation was judged appropriate for the study because the researcher, in his neutral position, organizes and keeps systematic records of data from the perspective of people. He has to check his observations regularly and readjust his data accordingly (Welman and Kruger, 2001: 84). The focus of the method is on finding the true meaning of people's actions (Saunders, Lewis and Tharnhill, 2000:383).

#### **5.4.2.5 Triangulation**

As the aim of the research was to understand the problem situation faced by the GADP, the research used various methods to collect the primary and secondary data. For primary data, the methods used included interviews, pilot interview, field notes, focus group, direct observation, diaries and systems thinking. The secondary data required the usage of documentation review that included books, journals, articles published by the World Bank and UN agencies and other researchers, reports of the GADP and electronic resources. These data sources helped to shape the thesis. For answers to research questions, credible findings are needed. That is why multiple methods were used to collect data and get findings from perspectives of various participants, and in addition to discover if the GADP could have made positive impacts particularly on the life of small farmers.

The triangulation method was of particular interest for the current study. As Hesse-Biber and Leavy (2006:318-319) state, triangulation gives researchers an opportunity to mix methods while looking for convergence and credibility of the research findings and for answers to their research questions. It also helps to build a comprehensive understanding of the research problem and to clarify research results.

#### **5.4.2.6 Corroboration**

The data collected came from various sources and were divided into two main parts:

- Documentary analysis which included the GADP reports and Internet resources, books and journals.
- Field research: interviews and direct observation, which included taking notes and photos.

Interviews were done in two phases, the first phase following on the documentary research. Data collected from interviews, GADP reports, and other sources such as journals, electronic resources and textbook as well as direct observation in the field provided the first partial results, synthesized into a document of 16 pages. It was presented to the respondents involved in the research for comments before the interpretation of the results. They were satisfied that the researcher did not alter their opinions and had kept the promises of confidentiality and anonymity. A second phase of interviews followed of which the objectives were specifically the following:

- Get any additional information;
- See whether nothing had been forgotten;
- Interpret the results from the data as clearly and completely as possible, based on the opinions of the informants, not on the views of the researcher;
- Give an opportunity to the informants, before the publication of the findings, to check whether the researcher had been accurate in the capturing and analysis of the data, and in the interpretation of the results, keeping promises regarding anonymity and the dignity of the respondents.

The method of corroboration was found to be appropriate to the study because it assured the research participants that their opinions were not altered during the process of data analysis, and that the findings of the researcher's investigation accurately reproduced their perceptions of the situation, regardless of the accuracy of those perceptions. In doing so, the researcher increases the credibility or trustworthiness of the research findings (Stainback and Stainback, 1988 quoted in Key, 1997).

## **5.5 DATA ANALYSIS**

### **5.5.1 Data analysis principles**

Data analysis is hard work and requires the use of some principles as guidance. Qualitative data analysis is the process used to answer research questions and make sense out of the data collected. Understanding and meanings constitute the study findings, which can be presented in the form of organized descriptive accounts, or as categories or themes that cut across the data. Findings are discussed either in a separate section or along with their presentation. In the findings, the researcher indicates areas of surprise, shows how he compares findings with what is already known, draws overall conclusions and demonstrates that his study makes a unique contribution to the knowledge base in his study area (Merriam, 2009:175-178).

Unlike quantitative research, qualitative data analysis should be done while the process of data collection is in progress (Hisada, 2003), without waiting until data have been accumulated (Shaw, 1999:175). When unstructured interviews are used, the researcher should begin analyzing data while interviewing participants. This is particularly important to get insights into developing new themes and identifying new areas of research during the field research sessions.



Therefore, it helps in developing questions during the interview. In this regard, data collection and data analysis interact (Erlandson et al., 1993:114). The use of quotes in writing a report about qualitative interviews is possible. The quotes should be clearly indicated, adequately edited, have a close relationship to the text and be expressed clearly. They should be interpreted so as to justify their presence in the report. They should not be too long, not to weaken their meaning. But they could be longer if used in a narrative way (Atkinson, 1992).

These data analysis principles were of great value in the process of analyzing data collected for the current study. In the phase of the interview sessions and at the end of a day of data collection, the researcher would reread the data gathered. It could happen that some data seemed altogether clear or complete. In such cases the researcher had to ask the interviewees for clarification. In this way, new ideas were generated. The willingness to assist and the release of ideas was attributable not only to the respondents' knowledge of the question-themes, but also to the friendly atmosphere created between them and the researcher. This helped to gather data of quality and to successfully analyze them in the course of data collection.

In this research, respondents were considered as experts because they had more information about the GADP than the researcher. The researcher, as learner, appreciated their opinions as expressed during the data collection, analysis, and the interpretation of results. In this context, at the time of analyzing data into themes, the use of quotes was found to be necessary for some data to show the extent of the researcher's respect for the respondents and the special attention he gave to their ideas.

### **5.5.2 Methods**

Unlike data from the literature review, the data from the research field were not collected in a structured way. This is because the respondents did not always express their opinions in a logical order. Therefore, the use of systems thinking, along with thematic analysis, helped the researcher to organize the data in an orderly way. This was done to get the meaningful findings about the GADP project.

### **5.5.2.1 Thematic analysis**

Thematic analysis was useful for data analysis because, on the basis of reactions from respondents after they read the recorded data (Wells, 2007:36), the researcher broke the data down into bits of information, assigning them to classes or categories (Merriam, 2009:177). In doing so, the researcher looked for themes and developed summaries, and at the same time the accumulated data were reduced to manageable sizes (Babbie and Mouton, 2003:492).

After collecting data through interviews and observation, the researcher used thematic analysis to organize and structure unstructured data in an orderly way into themes and sub-themes. These were, for instance:

- organizational structure;
- performance indicators;
- Organizational environment;
- Management which involves planning, partnership, time management, participatory development, and evaluation.

In analyzing qualitative data, there have been attempts to quantify statements of open or narrative interviews and analyze observations in terms of their frequency (Wells, 2007:36). However, the enumerating process which transforms qualitative into quantitative data, was criticized. Flick (2009:29) rigorously criticizes a tendency among qualitative researchers to try and convince their audiences by an argumentation based on a quantitative logic such as “five of seven interviewees have said...”, “the majority of the answers focused...”, instead of looking for a theoretically grounded interpretation and presentation of findings in which the emphasis is not on the frequency of certain responses but on the meaning of the findings. But in Wells’ (2007:36) opinion, transformation of qualitative into quantitative data can be used just to elucidate the relationship between the whole and its parts. That is why numbers of respondents have been introduced in the current thesis where statements by respondents that fit within a specific theme or category are quoted, although the study is not quantitative.

### **5.5.2.2 Systems thinking**

From the environmental perspective, the systems approach helped to view projects as systems bounded by internal and external environments and interacting with various interfaces which include stakeholders and inanimate objects as was seen in Chapter Two (section 2.1.8 Systems

thinking). Stakeholders came from both developed and developing countries, and included farmers, local and multinational business organisations, employees and employers, banks, education and health institutions and government and non-governmental organizations. The uncontrollable external environment of project management involved culture and ethics, partnership, technology, economy, which is characterized by financial resources, FDI, business, agriculture, debt, globalization, exchange rates, inflation, markets of products and services and business contract. That environment included also natural resources in terms of land, water, forests, as well as infrastructures such as roads, communication networks and media. Governments, non-governmental organizations, education, health, demography (gender) and climate change (weather) were also considered. The internal environment (controllable) comprised elements such as project definition, scheduling and resource allocation, information and communication, project control and risk management and available resources such as human, financial and material resources. The interactions and interconnectedness of these aspects and of stakeholders have a significant impact on project performances, whether in a positive or negative sense.

In the case of the GADP, stakeholders were identified. They operated at local, national and international levels and included notably farmers, research centres and education institutions (NUR and ISAR), sponsors (the Rwandan government and UN agencies), business organizations, contractors, etc. The external environment was basically characterized by political, ecological, demographic and economic factors. The internal environment included the following elements: planning, managing partnership, time management, resources management participatory development and the GADP evaluation. The systems thinking approach helped to form a picture of the complexity of the GADP. This complexity could, for example, be explained by the fact that the project had to carry out too many activities. Some of these were not in line with the project objectives and included non-agricultural aspects such as small business and loans. The project was operating in an unstable environment and dealt with many stakeholders whose intervention appeared at different levels. These stakeholders had different roles, expectations and interests. The project was not able to cope with this situation. As a result, it failed to achieve its objectives.

From a systemic approach, the systems thinking approach presents some benefits. Like the thematic analysis, it assisted the researcher to gain a better understanding of the problematic situation that the GADP was confronted with. It intervened during the process of data collection and data analysis. The technical tools (diagrams) that were used in this regard included multi-cause diagrams. These diagrams and thematic analysis combined together were an important input for data analysis.

The multi-cause diagram indicates the causal relationships, or the interaction, between different elements which include people and things in a situation (Lane, 1999:30). For example, the political unrest due to the civil war and the genocide affected the demography in that it resulted in the death of thousands of people, the exile of others, and the internal displacement of people towards the southern region of Rwanda, where the GADP was located. The refugees needed to eat and as they could not find fire wood they attacked the forests, including those planted by the GADP. In consequence – at least partly – of the destruction of forests, there were unexpected changes in weather patterns with both floods and droughts. Heavy rains led to worsening erosion, which in turn made the farmland more infertile. Production and crop income diminished, the market prices increased, and the living conditions of people deteriorated. Furthermore, the GADP project that was supposed to contribute to improve the livelihoods of people (food security, employment and income) and the economic conditions (increase of market crops, reduction of market prices) was overwhelmed by the tragic events. The overall situation worsened the living conditions of people and increased poverty, particularly in the rural areas.

It was difficult for the GADP to identify and establish close and strong relationships between its stakeholders without using systems thinking. As a result, it was not able to collaborate with its key stakeholders, who would interact with each other and with the project. Therefore, the project lacked:

- Adequate planning and implementation because some key stakeholders (farmers) were not effectively involved from the beginning to the end of the project.
- Communication skills and transparency, for instance, concerning the use of the findings from surveys. The information was kept confidential and for internal usage by only two departments, the accounting division and the head office of the GADP.

- The culture of learning which requires the use of action research. The focus of this learning process is on involving people in an action plan to deal with problems through solutions which they can implement cooperatively (Michael Armstrong, 2000:155). But the fact is that the GADP was not able to manage partnership relationships with its key stakeholders and did not allow active participation of stakeholders.

## **5.6 INTERPRETATION OF RESULTS**

For the sake of the credibility of qualitative research, the interpretation of results is done according to the opinions from respondents as suggested by Cooper and Schindler (2003:87). Data were collected in an unstructured way. So, there was no need to analyse them by means of software because the analysis had been systematically done into themes as the data collection process progressed. The thematic analysis allowed for the comparing and contrasting of patterns, behaviours and viewpoints of participants. Although the analytical process consisted of dividing data into categories, the aim was to better understand the whole picture of the problematic situation confronted by the GADP. That is why the systems thinking approach was applied and diagrams such as rich picture and multi-cause diagrams were drawn. These established the relationships between people, and between people and material aspects of their surroundings, and between hard and soft data. They show how these elements interact.

The results from the data analysis were interpreted with the purpose of making the finding of research more meaningful. Although the results should be interpreted from the perspective of the respondents, the researcher did not to accept all the results in the format in which they have been presented because some unclear and contradicting situations could be clarified. This was done with reference to the problem statement, and in response to the research questions and study objectives. Afterwards the researcher made some recommendations that could help to prevent project failures for ongoing and new projects.

## **5.7 TRUSTWORTHINESS OF THE STUDY**

According to Key (1997), verification of the study involves all the processes of data collection, analysis, and report writing on the research, while standards constitute criteria that the researcher or others can impose after the completion of the study. The criteria are an integral part of what Guba and Lincoln (1994) call the validity or trustworthiness of qualitative research. For the

benefit of the current study, the model of Guba and Lincoln (1994) has been selected for the development of strategies that provide the quality standard of the study. The strategies were credibility, transferability, dependability, and conformability and were presented in Table 5-1.

In qualitative research, the credibility of the results relies on the fact that they are obtained from the participants' perspectives. Transferability indicates the extent to which the results could be generalized and extended to other situations. From the quantitative research perspective, the research is dependable or reliable when it is repeated many times and produces the same results. But this is not the case for qualitative research because measuring the same thing twice means having two different things, because the repeatability of the research is occurring in changing contexts (Trochim, 2006). Confirmability in qualitative research refers to the extent to which the results can be validated by another researcher through documenting and rechecking the data collected as well as the methods used for data collection (Trochim, 2006 and Partington 2002: 111). The materials and documents may include interview instruments, cassette tapes, lists of interviewees, transcripts of interviews, field notes, research hypotheses, and so on (Schwandt, 1997:6). Confirmability is specifically concerned with the transparency in interpreting data (Partington 2002:111).

**Table 5-1: Strategies used for the trustworthiness of the study**

Strategy	Criteria	Experimental application
Credibility	Prolonged and varied field experience	Seven months were spent on the field work: visits to the project zone and physical contacts with the key stakeholders of GADP (ex-managers and staff of GADP, farmers, government authorities and contractors). This was a good opportunity for observing the physical environment (landscape, forest, hills, valley, etc), and carrying out the interviews
	Time sampling	This activity took 2 months.
	Reflexivity (field journal)	A field journal was kept in which notes were taken over the study period.
	Triangulation	Multi-methods, various sources of information, field notes, observation, and literature review.
	Member checking	Participants were given the opportunity to check the results from data collection and comment on them.
	Peer examination	<ul style="list-style-type: none"> <li>Participants were given the opportunity to check the findings and comment on them.</li> <li>The supervisor reviewed the data collected for accuracy and the way they were analyzed and interpreted.</li> <li>Copy editors checked the whole work for grammar, spelling, references, and structure.</li> </ul>
	Establishing authority of researcher	The researcher was awarded ethical clearance from the University of KwaZulu-Natal.
	Referential adequacy	All documentary data were adequately and accurately referenced.
Transferability	Nominated sample	The sample was selected on the basis of availability, willingness, and experience of the informants.
	Comparison of sample to demographic data	Gender, age, marital status, size of family, etc were taken into consideration in sampling method.
	Dense description	A detailed description of the methodology for data collection and analysis is given in Chapter Three.
Dependability	Dependability audit	Literature review and pilot interviews and the contribution of the supervisor were great inputs to the quality of the study.
	Dense description of research methods	A detailed description of the methodology for data collection and analysis is given in Chapter Three.
	Triangulation	Literature review, methods of data collection and analysis, field notes, photos, focus group and individual interviews were of great value to the findings of the study.
	Peer examination	Informants and the supervisor reviewed the way the data were synthesized and analyzed.
Confirmability	Confirmability audit	The supervisor reviewed the way the data were synthesized and analyzed.
	Triangulation	As discussed on the above points
	Reflexivity	As discussed above on the above points.

Source: Adapted to the case study of the GADP from Krefting (1991) quoted in Key (1997).

## 5.8 METHODOLOGICAL LIMITATIONS

The methodological limitations reduced to some degree the quality of the study because they did not allow the researcher to get all the relevant information needed. That is why the researcher does not claim to have explored all that the study required to answer the research questions. The limitations are particularly found in the areas of the documentary review and field research.

### **5.8.1 Documentary review**

The process of gathering data from documents was problematic. In fact, the documents, such as progress reports of the GADP, were few and were not available in any official location (office or library). Only one ex-manager kept them at home where it was at first difficult to find them, and next the ex-manager did not want them to leave his house for reasons of safety. So the researcher photocopied all of them. Concerning electronic resources, on several occasions when the researcher wanted to recheck some sources, he found that the data had been removed from the website or the name had been changed. The researcher also had problems with library resources, which in some cases were too limited to properly cover important research aspects.

### **5.8.2 Field research**

During the course of field research, problems arose concerning transport and communication costs, and inclement weather. The researcher lives nearly 30 km from the site of the GADP and he had to use public transport. Sometimes, he hired a motorcycle to save time and speed up the research. This was very expensive. As the sponsor released only R11, 000 for the total field research, which required nearly R 40,000, the researcher had to use his own money. The project zone being in a hilly region, cars and motorcycles are not able to reach certain areas, also because of bad road conditions. Therefore, the researcher was forced to walk which cost time. Public phones were not available in the area, so he often used his own cell phone to communicate with research participants, which added further to his expenses. As the field research was conducted in the rainy season, the rain affected appointments with the respondents, causing more delays. Participants' work and family pressures sometimes interfered with the interviews, but that didn't happen too often. The interviews were conducted at the workplace or at the home of the respondents, depending on where they could be available. The interviews amounted to almost 4 months of data collection (from the 15<sup>th</sup> March 2007 to the 2<sup>nd</sup> July 2007). Appointments were not always respected. Unexpected events (illness, etc) on the part of the participants, intervened with appointments. Some participants forgot they had an appointment with the researcher and went away for their daily activities, and it was difficult to make other arrangements. This resulted in loss of time and transport costs. During the period of interviews, 3 respondents withdrew from the research for their own reasons. It was not surprising; the possibility to withdraw had been stipulated in the letter of informed consent.



Furthermore, the field work was done during the annual 100-day period, set aside by the Government of Rwanda for remembering the victims of the genocide. The period runs from the 7<sup>th</sup> April to the beginning of July. During this period the daily work continues, but many special activities are organized such as visits to the genocide memorial sites, which have been built in different parts of the country, special burial ceremonies for newly discovered bodies that have been exhumed and identified, meetings in which central and local leaders encourage the audience to practice reconciliation so that there will be no repeat of 1994, etc. Attending these activities is necessary for everyone in Rwanda. It was a difficult time for doing research and to conduct interviews with people in these circumstances was often painful. In some interviews participants' feelings of sadness were expressed, interfering with the interviews. The researcher could not wait until the end of the mourning period because the PhD program is bound in time (4 years to complete the whole program with sponsorship also limited to 4 years and not renewable). Any delay in the completion of the program would have had negative consequences for the researcher's employment contract with his employer and for the sponsorship contract.

## **5.9 CHAPTER SUMMARY**

In Chapters Two to Four, some key principles of project management and evaluation are discussed as well as the reasons why many projects in developing countries fail. The chapters contribute to the development of Chapter Five, as they provide some insight into methods of data collection and into identifying the nature of both the data to be collected and of the research participants. Therefore, 33 participants were selected on the basis of their willingness to participate and their knowledge about the GADP. As the study was qualitative, aimed at understanding the case of the GADP, appropriate methods were selected to collect relevant data, which were required to answer the research questions and objectives involved the case study, documentary review, interviews, field research, direct observation, and corroboration. For the data analysis, the suitable methods included thematic analysis and systems thinking. This analysis respected the principles of confidentiality, anonymity and the perspectives of the respondents when the results were interpreted. Chapter Five is an introductory step to the rest of the work, which covers Chapters Six to Eight. They deal with the presentation of the case study of the GADP, the performance indicators that were used to evaluate the project, its organizational environment, the way the project was managed and evaluated and the main causes of the GADP failure.

## **CHAPTER SIX: PRESENTATION OF THE CASE STUDY OF THE GADP**

In this chapter, the emphasis is on an overview of GADP features, that is, the project definition or terms of reference, involving duration, budget, area and surface covered, target group, components and impacts. The GADP leadership, objectives and organizational structure, performance indicators and the organizational environment, are also central to this chapter.

### **6.1 INTRODUCTION: HISTORICAL BACKGROUND OF THE GADP**

#### **6.1.1 Terms of reference of the GADP**

The GADP was conceived in 1990 (Bguyonb and GADP, 1993) by the Government of Rwanda, with a total budget of \$EU 35.6 million, of which an amount of \$EU 7.7 (European dollars) was funded by beneficiaries, \$EU 5.4 by the Rwandan government, \$EU 11.2 by IFAD, \$EU 4.7 by the United Nations Fund for Equipment (FENU), \$EU 3.4 by PNUD, and \$EU 3.2 by the World Food Program (WFP). At the beginning, the GADP duration was estimated at 7 years (Bguyonb and GADP, 1993). This means that the project was expected to close by the end of 1997. But the duration was extended and the project was terminated on 30 June 2001, as one former manager of the GADP confirmed. The GADP was implemented in the southern region of Rwanda (Map 6-1).

**Map 6-1: The GADP location on the map of Rwanda**



Source: Maps of World (2009).

According to Bguyonb and GADP (1993), the GADP comprised 7 districts out of 13 of Gikongoro Province. The project covered a surface of 83,508 ha with 250,000 habitants. The area's altitude varies from 1600 to 2400 meters. The population density is very high, that is, 250 people to 400/km<sup>2</sup>. This may be one of the causes of the severe poverty in the region. The distribution of land among the targeted people of 42,000 families was uneven. In 1989, 28% of the people owned ½ ha of land and 37% owned between ½ ha and 1 ha. At that time, less than 40% had cattle, so more than 60% had no livestock. Among those who had livestock, less than 50% kept sheep, goats, and pigs. The small family incomes came from export crops such as coffee, and food crops like potatoes, wheat, sweet potatoes, and so on. The consequence of this distribution was that the population consumed less than 1,500 kcal/day in nutritional requirements on average. The GADP came in Gikongoro at a time when people urgently needed it to solve these problems.

The purpose of the GADP implementation in Gikongoro was to help people to alleviate their poverty (IFAD, 1993) and to reduce the problem of food insecurity. In Gikongoro, food insecurity was a result of small farmers not being able to sustain themselves on less than ½ ha of farming land. Approximately 40% of those farms were headed by women. Rural young people and the households of older people were particularly affected (IFAD et al, 1993). The GADP set out to make a significant impact on the lives of people living in Gikongoro province. It was

hoped that the nutritional quality of their food would be improved by increasing the production of livestock and agriculture. The project would contribute to alleviating the problem of unemployment and increasing the incomes of small farmers by more than 50%. People would have more developed farmland (IFAD, 1993). The project wanted to improve the standard of living of the poorest and integrate the region of Gikongoro into national economic exchanges (Bguyonb and GADP, 1993).

For this reason, Bguyonb and GADP (1993) state that the GADP was directly concerned with improving the farming production, particularly in the areas of agriculture, livestock, popularization, research and development, as well as developing valley land and land at high altitude. This was in support of the reorganization of the national structure of MINAGRI. The GADP also aimed to improve the economic environment by promoting upstream and downstream production, and by subcontracting some activities to national organizations. These included roads and storerooms construction, rural area structuring, micro-enterprises support, farming loans, and training for the GADP personnel and farmers. This subcontracting was inevitable as the GADP had far too many tasks to fulfil.

Besides the allocation of newly developed land, the project considered activities (business) other than agriculture in order to help vulnerable people, particularly women, to increase their small incomes. The women were given a high priority because they formed the majority of the target group and many of them headed families (IFAD, 1993).

#### **6.1.2 The GADP implementation**

Bguyonb and GADP (1993) indicate that, in its attempts to alleviate poverty in Gikongoro, the GADP had been supported by the United Nations Development Program (UNDP) and the World Food Program (WFP) since 1977, specifically with agricultural development in 7 districts of Gikongoro province. The main activities that they supported include:

- Reforestation and anti-erosive activities;
- Integration of agriculture and animal rearing;
- Agricultural intensification with growing seeds and distribution of inputs (fertilizers);
- Marsh development and cooperatives support.

In that context, Bguyonb and GADP (1993) state that the GADP intended to increase monetary income in the project zone by increasing commercial crops and to improve the nutritional situation (objective: 1875 Kcal /day) in the project zone, integrating women and small farming enterprises.

Four former employees of the GADP expressed the view that the project was seriously intended to promote the development of Gikongoro province by means of training farmers to increase their harvests to meet their needs in food and market crops. This should also contribute towards solving the problem of the chronic famine experienced in the region for a long time. Therefore, the GADP was implemented in Gikongoro at the right time, replacing another project PIA.

One manager of the GADP asserted that the GADP took over 80% of the PIA's infrastructures. Two ex-employees of the GADP added that the GADP made a remarkable difference and accomplished other concrete activities such as improving the availability of inputs (fertilizers, seeds) besides the activities of popularization. Popularization of the GADP entailed making itself known and attractive to the Rwandan community, using radio, TV, media, meetings and training. This was not done by the PIA when it was operating in Gikongoro. In addition, the head office of the GADP was based in Gikongoro, close to the beneficiaries in other words. This was an important advantage and it should have favoured rapid growth and a speedier achievement of its activities.

Another GADP manager added that, during the first three years, the project had been in a good position to achieve its objectives, mainly because its human resources were sufficient, both in quality and quantity. At the beginning, the project had three to four experts. Even the managing director of the project was an expert in management and agricultural engineering. But, according to IFAD et al. (1993), 56 out of 89 staff, employed by the GADP in management, had only high school and were not trained in the field of management. Therefore the quality of staff was doubtful.

The manager said that, as from July 1992, the leadership of the project had changed and the number of experts was reduced because of decreased sponsorship as Rwanda was still in the throes of the war that had started in 1990. The war had serious consequences for the project because it lost both personnel and material (infrastructures). But according to Bguyonb and GADP (1993), the changes in 1992 were part of a reorganization aimed at integrating the GADP

into the national structures of MINAGRI. This process had begun in 1990 and involved a reduction in GADP staff from 311 employees in 1990 to 89 employees in 1993. As IFAD (1993) indicates, it was in 1993 that the first mid-term evaluation team was put in place and its findings were published.

Two GADP managers said that after the war and genocide of 1994, the project had only three full-time employees. The sponsors officially brought the project back on track in July 1996. But from 1997 to early 1998, funding was blocked due to administrative problems. During that period, the employees were not paid their salaries. The year 1998 was characterized by the rehabilitation of infrastructures. One GADP manager affirmed that, from 1998 to 2001, the project made rapid progress towards the achievement of its objectives. This was due to changes in the project leadership in late 1997. With the new director, there was an improvement in project management and leadership, characterized by the speed that dossiers and the allocation of funds were dealt with. Some work was subcontracted to private enterprises after the works had been put out to tender. This was not done while tendering had been in the hands of the National Tender Board (Government institution). Hence, as far as certain aspects of management were concerned, things were going well, but IFAD (1993) points out that the GADP had serious problems with the coordination of activities, subcontracted to different contracting parties such as those in charge of training farmers and constructing roads.

The failure of the GADP was confirmed by 14 farmers who acknowledged that the GADP recorded some achievements, such as providing farmers with knowledge on financial management of cooperative and farming techniques. They learned how to efficiently use resources and savings and they received self-employment opportunities. However, they found that the overall positive impact of the project was not significantly perceptible in their lives because the war and the genocide destroyed all that they had achieved, and because of their very limited participation in the project from beginning to end. They were not involved even in the planning processes in spite of being the main beneficiaries of the project.

There is no doubt that the war and genocide played a big role in destroying the GADP resources (people, fixed assets and other resources). However, this was not the only, or even the major, cause of the failure. Although views regarding the reasons for the reorganization of the GADP introduced in 1992 differ, the reality is that there was a problem in relation to the GADP management, particularly in the area of planning. It is, for example, difficult to understand how,

within only 3 years, the number of employees could be reduced from 311 to 89. In the resource planning, the number of employees needed had been overestimated, resulting in waste of financial resources because of undue payment of salaries, while the project already had a serious sponsorship problem. But no matter how strong the GADP leadership would have been – and it apparently was strong, but only at a late stage – on its own it would not have been able to affect the desired significant changes in the project implementation. It would have needed the total and active involvement of all GADP stakeholders throughout its life-cycle.

### **6.1.3 The GADP leadership**

One ex-manager of the GADP indicated the duality of responsibilities of the Head of the GADP. The duality consisted of also being director of RDAS (Regional Director of Agricultural Services and GADP). For the respondent, the duality of responsibilities did not cause the Director any problems. On the contrary, he concluded that it was an advantage because he knew the way of things in both organizations and could move ahead more quickly. This was also because there was no one to interfere with his supervision and control.

Duality of responsibilities was, however, a serious problem caused by the poor organizational structure of the project. The organizational structure was ambiguous and this resulted in poor job description and resource allocation. In fact, the GADP was under the direct control of MINAGRI and RDAS. MINAGRI was represented in the Gikongoro province by RDAS. There was confusion between the GADP and the RDAS, the two organizations which were under the same direct supervision of MINAGRI and doing the same things in the same region. For the GADP, this ambiguous organizational structure made the coordination of activities very difficult and, as there was only limited autonomy in the carrying out of tasks, there could also be no optimal allocation of the resources. The duplication of the responsibilities of the head of the GADP contributed to poor planning of the project.

Furthermore, as one farmer indicated, the senior managers of GADP departments and sub-programmes carried out daily management activities, but they had to report directly to the director of the RDAS instead of to the director of the GADP. In other words, the project was not managed in a transparent way. It seemed that management and leadership were in the hands of senior project managers and other powerful and influential people. The project was designed without consulting the persons targeted and it had just been imposed on them. The result was

that some of the project's achievements and infrastructures were destroyed because beneficiaries, particularly farmers, did not understand that they were the owners. This concerns, for example, stores and fertilizers. Today, they regret such behaviour. In addition, different activities were carried out in different districts. For example, what was done in Nyamagabe, differed from what was done in Mudasomwa. Some districts were given cows; others received goats, while the neighbouring districts of the Nyungwe forest received wheat and potatoes. Regarding supervision, one farmer said that the direct supervisor of the agronomists and veterinarians, operating in the districts, was the director of the GADP, who would receive the compulsory authorization to supervise his employees from the local government (the Mayor of the district). The farmer concerned saw this administrative rule as an indication of the good relationship between the GADP and the districts, rather than as a barrier. However, the employee performance appraisal was not done by the director of the GADP but by the head of the district where employees were allocated.

The GADP leadership was problematic and confusing. If the employee performance appraisal was accompanied by a reward, how could a direct supervisor (employer) reward an employee whom he had not followed-up on a daily basis and evaluated himself? How is it that an employee of the GADP, working in a district area, had to report on his activities directly to the head of the district, rather than to his direct supervisor? How is it possible to be the director of two different organizations doing the same thing in the same region, one organization being under the supervision of another?

The GADP leadership was marked by poor partnership, which had many implications. The leader might concentrate the power into his own hands. He could find it difficult to delegate authority and responsibilities to his subordinates. He could for, example, think that he was the only one who knew all there was to know and think and make decisions alone, or with a small group of people, for the rest of the employees who would become de-motivated. This would lead to lower productivity and a high rate of staff turnover, and ultimately to a loss of employees' knowledge, experience and skills. Re-motivating the same employees might be difficult, even impossible, and the recruitment of others would be costly. It is obvious that such leadership would result in poor coordination of activities and waste of resources. It would also be a handicap to internal and external cooperation with different stakeholders and an obstacle to effective communication. It could lead to mismanagement of resources and limit the free flow of



information (stakeholders' opinions, fresh and new ideas), which could contribute to the project's success.

It is hard to understand how one and the same person can be director of two organizations and distribute his time and energy evenly. In addition, one can question the quality of decisions made under these conditions. How would it be possible for him to remain principled while resolving conflicting situations, when these concern decisions linked to leadership and management issues, considering that all decision-making powers were in his own hands? Having two workplaces, his absence at the one could lead to some activities being paralysed because some important dossiers had to wait for his signature. The circumstances were not conducive for transparent processes of decision-making and problem-solving, nor did they encourage leadership accountability.

In an interview conducted with Governor K on his past experience with the GADP, the Governor said it is important that project leaders be instructed at least once a month on the objectives, activities and benefits of the project so that, when they have to sensitize the local people they know the project in and out. For the success of the project, the governor indicated, strong partnership relationships are needed between project managers, local people (target beneficiaries) and government authorities at all levels.

The fact that strong GADP leadership was established only late in 1998, when the project was approaching its end, and the frequent changes in leadership before that time, negatively influenced the realization of the project's objectives. The GADP was active at a time when the government authority was not decentralized at provincial, district and local levels. That the project was under the supervision of the centralized government, which had the last word on important decisions, made at GADP level, was a serious impediment to the active participation of, particularly, farmers in GADP decisions.

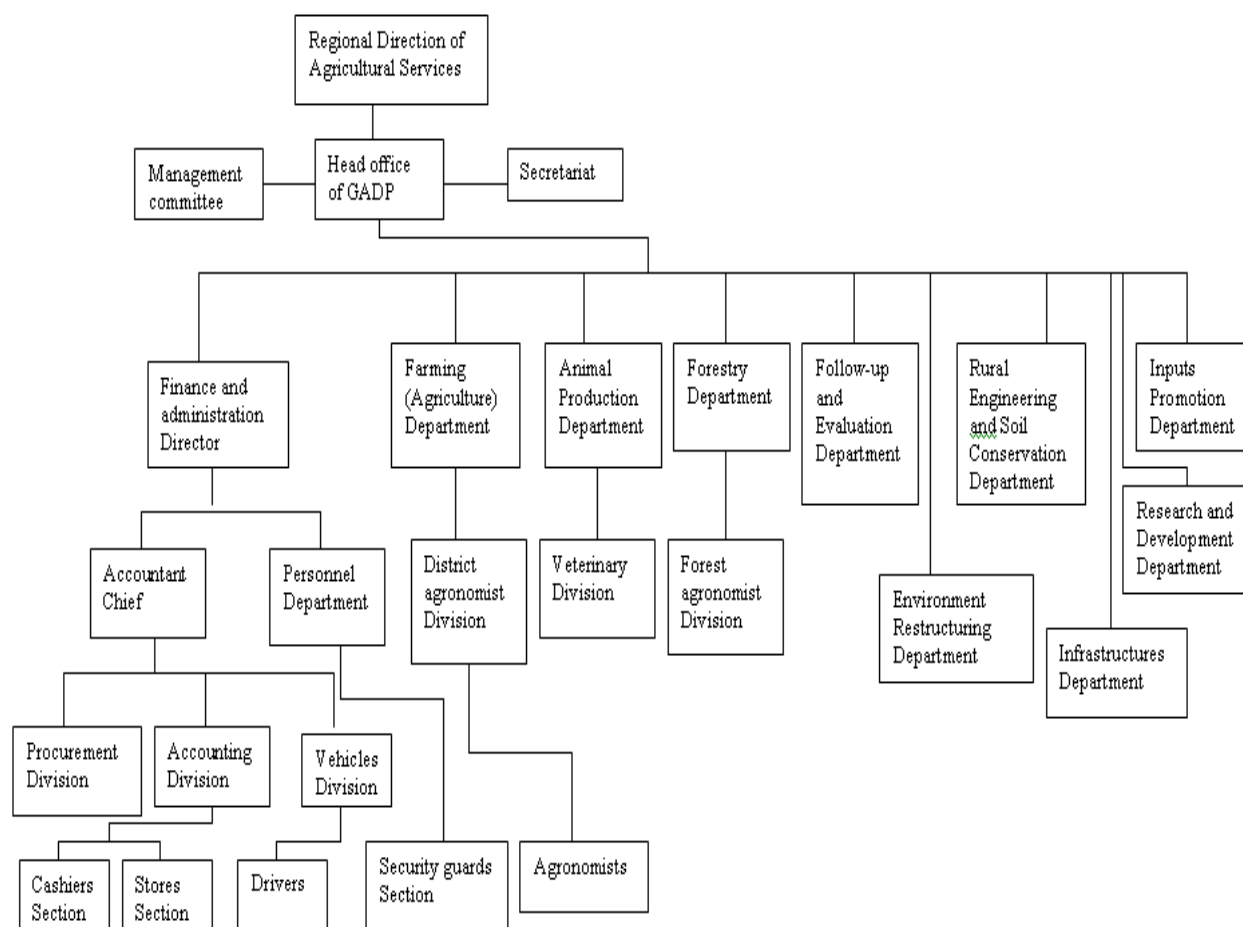
## **6.2 ORGANIZATIONAL STRUCTURE AND OBJECTIVES OF THE GADP**

### **6.2.1 Organizational structure**

As shown in Figure 6-1, the GADP had the following departments: Head Office, Management Committee, Administration and Finance, Farming, Inputs Promotion, Animal Production, Forestry Department, Follow-up and Evaluation, Rural Engineering and Soil Conservation,

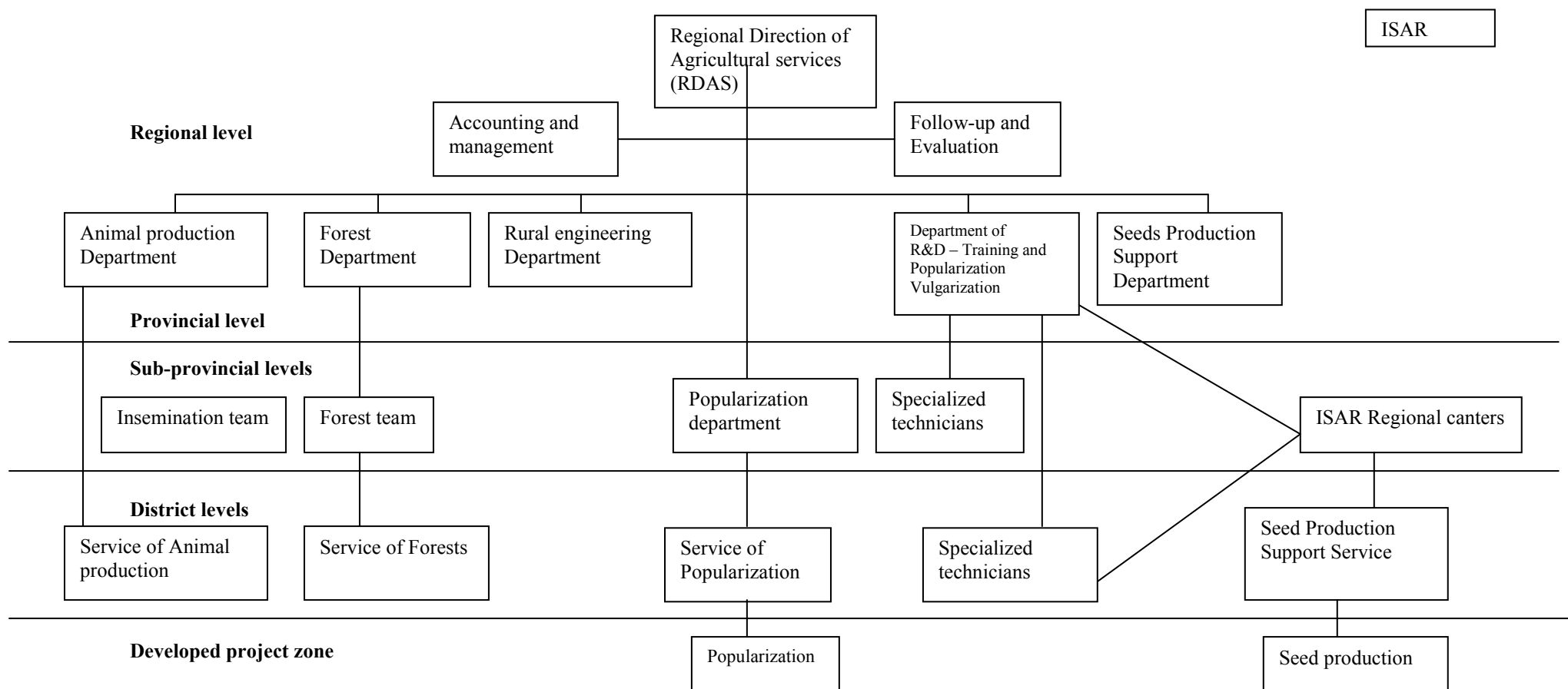
Organizational Structure Support, Environment Restructuring, Infrastructures, Research and Development (GADP, 2001). The GADP was under the Head of the Regional Direction of Agricultural Services whose chart flow is presented in Figure 6-2.

**Figure 6-1: Organizational structure of the GADP**



Source: Data from interviews and documentary analysis.

**Figure 6.2: Chart flow of Agricultural Services at Provincial level: April 1992**



Source: IFAD et al. (1993)

Figures 6-1 and 6-2 indicate that the GADP and RDAS carried out almost the same activities, which were in relation to agriculture, animal production, soil conservation and environment protection. According to the chart flow of the RDAS, the head of the RDAS was assisted by two services: Accounting and Management, and Follow-up and Evaluation. At the provincial level, he was assisted by the following Departments: Animal production, Forest, Rural engineering, Research and Development – Training and Popularization, Seed Production Support and Popularization. At the sub-provincial level, he was assisted by the Insemination team, Forest team, and Specialized technicians. At the district level, he was assisted by the following services: Animal production, Forests, Popularization, Specialized technicians and Seed Production Support. At the level of the developed project zone (GADP), he was assisted by the units of Popularization and Seed production. In the regional centers of the Rwandan Agricultural Research Institute (ISAR), the RDAS cooperated with the ISAR at the sub-provincial level. The specialized technicians of the RDAS collaborated with ISAR in the area of Research and Development, Training and Popularization. The RDAS no longer exists. The researcher did not find any details about, or even any references to RDAS activities and objectives, and how it worked with the GADP, nor in GADP documents, neither in any other source of information. Participants in the current research had no knowledge of this organization, except that two former managers of the GADP stated that the head of the RDAS was at the same time head of the GADP.

The organizational structures of the GADP and RDAS formed a complex situation. One could not understand how the Head of the RDAS would be both the direct supervisor and Head of the GADP, which was among its partners. The partnership relationships between the RDAS and GADP would be questionable because they competed with each other in the same region for the same stakeholders and reported to the same supervisor (MINAGRI). This situation would have contributed, to a great extent, to the poor management and weak leadership of the GADP.

The GADP was designed to achieve the following objectives: improving food security, increasing the incomes of small farmers and supporting the services of agriculture in the province of Gikongoro. To achieve this, the project intended to increase the production of livestock and expand the methods of soil conservation and fertility. The GADP also had to promote agricultural intensification regarding especially food and cash crops, and assist the cooperatives of small farmers to get access to agricultural credits (IFAD, 1993).

However, the way the GADP departments were structured and organized was not satisfactory. Although the GADP departments are presented in Figure 6-1, more and relevant details in relation to specific activities of each department were mentioned nowhere in the documents of the GADP. It would therefore have been difficult to prepare reasonable plans, encompassing objective definitions with activity identification, scheduling and estimations of necessary resources.

### **6.2.2 Weaknesses of the GADP organizational structure and objectives**

The department tasked with the following-up and evaluation of activities was at the same level as other departments such as Finance and Administration, and Forestry and Animal Production. Even so, the department of Evaluation was either under the supervision of the Research or Development Department, or under that of the managing director of the project, which seems wrong as the department fulfilled a crucial role in respect to GADP management.

Other departments such as the Secretariat, Environmental Restructuring, Infrastructures, Research and Development are presented in figure 6-1 but their corresponding activities were not described in any available GADP documents. Neither figure 6-1 nor any other GADP documents indicate that there was a special department which was responsible for non-agricultural components such as bank loans and micro and small business. The implications are that these components were not adequately planned, which could be partly responsible for delays, waste of resources, inadequate coordination of the project activities and poor relations of the GADP with farmers and banks. It is difficult to imagine how the GADP could set objectives without clearly identifying departments, components and the corresponding activities which would need to be carried out to achieve the objectives. All these examples indicate that the GADP organizational structure was inadequate, affecting the whole of the GADP life cycle. The subdivision of the project into departments implies, for instance, that the project was preparing to clearly define its objectives and identify and schedule activities, and to determine roles and responsibilities, and finally to estimate the resources needed. The logical relationships, which would have been established between the project organizational structure, objectives, activities and resources for suitable planning, implementation and sustainability of the GADP in an unstable environment, are presented in Figure 6-3.

**Figure 6-3: Relationships between organizational structure, objectives and resources.**

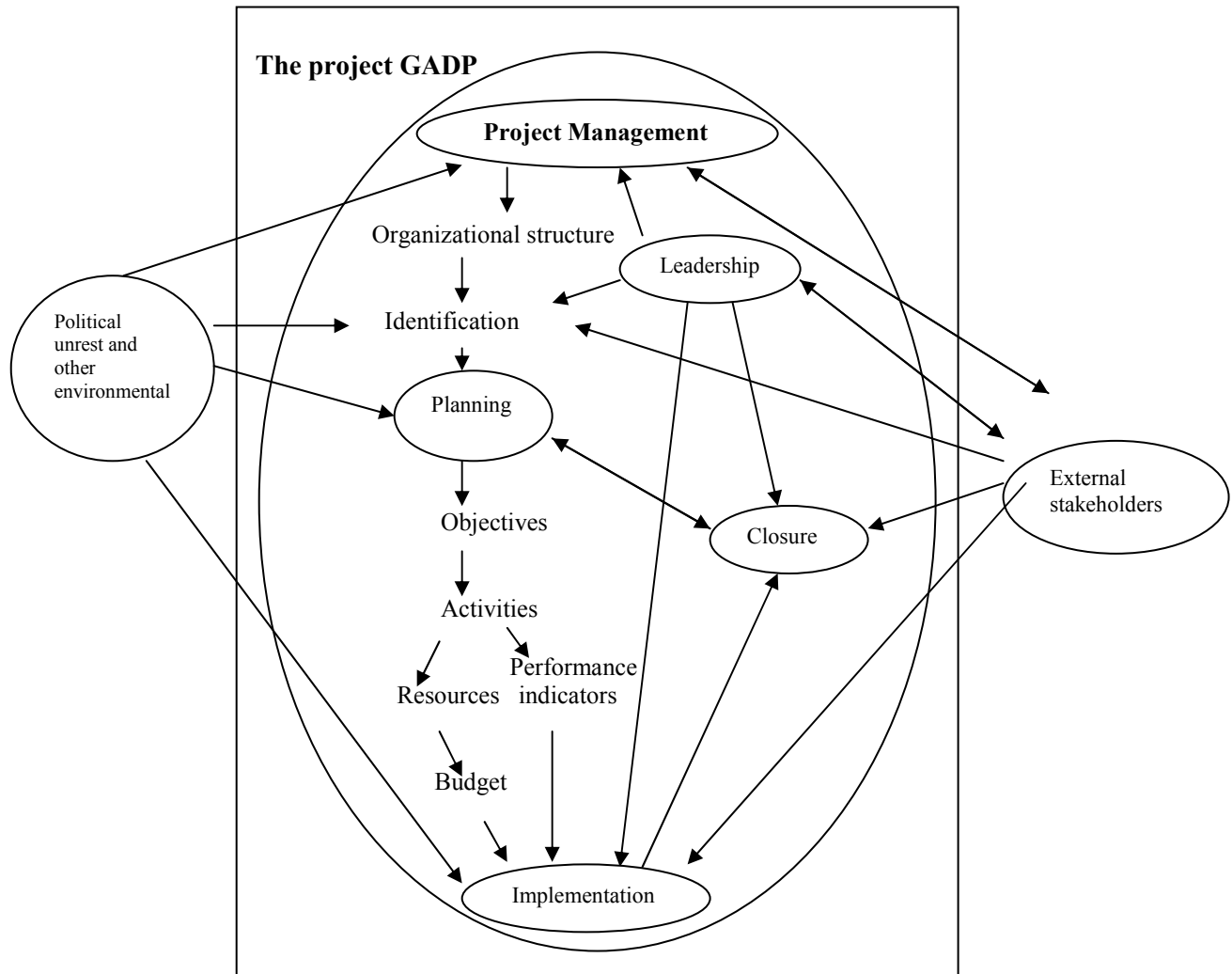


Figure 6-3 indicates that the GADP management should have designed an organizational structure that allows for rational planning, which requires that the real needs of key stakeholders are determined, realistic objectives set, resources for activities objectively estimated and achievable performance indicators identified. The implementation phase of a project should not be unnecessarily complicated by problems of overestimation or underestimation of required resources. Project leadership, external environment and external stakeholders should have been taken seriously because they are all factors that significantly affect the project management in the processes of planning, implementation and closing down.

### **6.3 THE PERFORMANCE INDICATORS AS STRUCTURED BY THE GADP**

During the phase of implementation, the project recorded some achievements in different areas. The fact that the GADP was well integrated into the administrative structures of MINAGRI, located in Gikongoro, helped to improve agricultural services. The local farmers benefited from training by specialized centres such as IWACU and INADES. The training covered cooperative management, soil conservation and fertility, increase of production of livestock and agriculture. For example, in comparison with the targets, the rates of achievement for soya and sorghum were respectively 95% and 526%. A number of surveys were conducted on how to alleviate poverty in Gikongoro (IFAD, 1993).

The achievements of the GADP during its implementation were measured by performance indicators, which define the degree to which the project was successful and the objectives were attained (UNCHS 2003). They are road signs of change and guide the program or project in assessing if it is making the desired difference to the lives of the beneficiaries. Figure 6-3 indicated how this could be achieved.

However, the way the GADP identified and structured its performance indicators was problematic because in many ways, there were no relationships between objectives, activities and performance indicators. An example of poor performance indicators is illustrated in Table 6-1.

**Table 6-1: Performance indicators as structured by the GADP**

Objectives	Activities	Achievement	Sources of data	Observation/ remarks
<b>General objectives</b>				
Farming production increased	Increase farming production	-Arable land farmed increased by 5% -Livestock needs covered: pigs (6.2%), rabbits (36%), and sheep (14.3%)	- Report of crops forecast - Market price - Survey report on farming Production	-Availability of financial resources of the project -Release of funds by sponsors -Government fund availed in time
<b>Specific objectives</b>				
1.Arable land increased	Increase arable land: marsh development	Rehabilitation of 230 ha up to 15 October 1998	-Report of Rural engineering activities -Report of Evaluation and follow-up Department	Availability of technical documents before the end of July 1998
1.1 Progressive diminution of non-arable land in rural area	1. Guarantee the maintenance of vegetal material against erosion 2. Rehabilitate the main Drains	-¼ ha of vegetal material per district rehabilitated -one survey on farming production systems achieved	-Activities report -Follow-up report -Survey report	No information was provided for the project progress.
1.2 Marsh development	1.Canalize water during dry season in the marshes of Mwogo-Rwameru 2. Rehabilitate main drains in Mwogo-Rwamweru	-One temporary dam installed by 30 October 1998 on Nkungu -One channel of water (1.5km) to the marshes Mwogo-Rwamweru dug by 30 October 1998	-Report of rural engineering -Report of final reception	No information was provided for the project progress
2. Agricultural inputs available	1.Provide farmers with inputs through the NGOs UNICOOPAGI and RITA  2. Get in time inputs as forecasted (3 months before agricultural season)  3. Provide in time inputs to the groupings who sold inputs (1 month before agricultural season)	Inputs available 16 131 500 Fr (local currency)  Orders established and submitted in time to suppliers  Schedule of transporting inputs to the stores respected	Distributions report Report on monthly activities  Reception documents  -Expedition (delivery) documents -Documents for entry of inputs in stores	No information was provided for project progress.
	4. Increase seeds improved for distribution	Distribution of inputs to the contractors for increasing seeds of potatoes, beans, soya beans, sweet potatoes by 15 September 1998.	-Distribution report -Contracts for increasing seeds signed -Report of follow-up	No information was provided for the project progress.
	5. Establish credit system for inputs	One contract signed between the project and beneficiaries of credit (groupings, association of groupings).	Agreements signed	No information was provided for the project progress.
	6.Rehabilitate veterinary Dispensaries	10 dispensaries rehabilitated and equipped in 9 districts by the end of 1998	-Activities report -Follow-up report	No information was provided for the project progress



Objectives	Activities	Achievement of objectives	Sources of data	Observation/ remarks
<b>Specific objectives</b>				
3. Transport equipment and infrastructures	1. Transport of fertilizers and seeds to the storerooms of cooperatives	One vehicle (DAIHATSU) available to the project for transporting inputs	Financial report	No information was provided for the project progress.
	2. Rehabilitate roads connecting project and hangars of stores	4 roads rehabilitated respectively of 12km, 3km, 1km, and 500m.	-Research and Development report -Follow-up report	No information was provided.
4. Increased Projects generating jobs	1. Source contractors for improving the state of roads	One contract signed for rehabilitating roads of 50km -55 000 forestry plants for the Province were distributed -26 000 fruit plants provided	Rural engineering report	No information was provided for the project progress.
	2. Assure maintenance of forestry paths	Forestry paths of 50km rehabilitated by December 1998	Follow-up report	
	3. Reforestation	100 ha reconstituted	Follow-up report	
	4. Creation of forestry paths	4 forestry paths created	Follow-up report	
	5. Security guard	60 security guards allocated in different districts	-Personnel documents -Evaluation and follow-up Report	
	6. Put in place an autonomous saving and credit system (fund) for farmers	Workshop held between beneficiaries and representatives of Financial Institutions, sponsors, MINAGRI, Ministry of Commerce	-Training report -Evaluation and follow-up report	
5. Training	1. Train farmers about the right way of using land (crops rotation, fertilizer, combating diseases)	- A syllabus on training in agricultural techniques: 70 copies produced and distributed - A 2- day session about the usage of the syllabus held for 4 agricultural technicians at district level - A 3-day training session for 5 farmers per sector (local administration unit) Held	-Syllabus of training -Training report -Follow-up report	No information was provided for the project progress.
	2. Training for farmers about grouping management	A 3-day session held and 3 members of each grouping from 3 groupings per district trained on organization and management of groupings	-Training report - Follow-up report	
	3. Train farmers about excavation work and its management	6 agronomists from districts of high altitude trained for 6 days in Gikongoro Province	-Visit report -Follow-up report	
	4. Field visits	14 farmers visited ARDI (NGO) for 30 days about the rearing of bees	-Visit report -Follow-up report	

Source: GADP (2001).

From Table 6-1, one can see that GADP performance indicators are not well structured and do not appear clearly in the table. They are vaguely presented. This is an understandable result of the fact that, as is obvious from GADP reports, some objectives, activities, components, and impacts were not clearly stated, nor was the relationship between them clearly defined. Therefore the project's achievements could not be objectively measured. Objective N° 4 in Table 6-1 illustrates the problem. In fact, an increase in the projects which would generate jobs has no direct link with the activities related to improving the state of roads, maintenance of forestry paths, reforestation, security guards, and credit system. It will be hard to measure the extent to which the objective has been achieved.

The column of the objective achievement in Table 6-1 indicates actual indicators (degree of objective achievement), but no planned indicators are mentioned elsewhere in the table. Hence, it is very difficult to come to a conclusion on project achievements. Performance is appreciated by comparing actual and planned achievement. The deviation between planned and actual achievement indicates whether the project is behind or ahead of schedule, so that corrective action may be taken while there is still time. That this aspect of planning was not properly taken care of could be the cause of delays, budget overruns, poor coordination of activities, poor relationships among the project stakeholders and conflicts, waste of resources, low productivity, and could finally have contributed to the overall failure of the GADP.

An example of the confused state of affairs is the objective of developing lowest level valley land of 450 ha and land of high altitude of 378 ha in collaboration with small cooperatives. The table of indicators indicates that 230 ha of marsh land had been rehabilitated up to the 15<sup>th</sup> October 1998. The objective, however, stipulates the development, not the rehabilitation, of the 450 ha land. A comparison between what has been planned and what was achieved becomes practically impossible because the terms of comparison are different. The initial objective is not what is measured. Another example is the objective of "construction or rehabilitation of 85.9 km of roads at district level using a high intensity workforce". The table of indicators indicates that 4 roads respectively of 12km, 3km, 1km, and 500m were rehabilitated. In total, the rehabilitated roads covered a distance of 16.5 km. The way the objective was set is confusing. To make it possible to measure the project objectives and compare planned and achieved objectives, there should have been two separate objectives, the first: "construction of roads", and the second: "rehabilitation of roads". To measure the achievement of the stated objective is not possible

because the distance of roads to be rehabilitated and the distance of roads to be constructed is unknown, the comparison between the roads rehabilitated and roads to be rehabilitated is impossible to make, and the performance of the road component is difficult to judge.

Moreover, the activity of training for farmers was not mentioned in the project objectives, but appears in the table of performance indicators. Whether the activity was achieved is impossible to say because it was not included in the planning. And even if it has been carried out, it could have unbalanced the financial forecasts as it was not included in the financial planning. There is evidence that the activity was not well planned and not achieved. According to the GADP (2001), trainees included farmers and employees from different levels of government bodies (central, provincial, district and levels). Training involved such subjects as computer skills, farm work, planning, management of stores, cooperatives management, intensive campaigns and popularization, survey, data analysis and research and development.

It would have been difficult to train people from different backgrounds, using the same training programs, and allocating the same time which, anyway, appears to have been too short to cover all the training needs. The records of the GADP (2001) indicate that the methods used for training involved sessions, meetings, study tours and practical training in foreign countries. Training sessions and workshops could take 3 to 5 days. Considering time limitations, the training could not have been very productive to make positive impacts through the acquisition of sound, new knowledge and skills.

No doubt, the war and genocide were among the major causes for the non-achievement of training objectives, because some trainees and trainers were killed and others exiled to foreign countries. Besides, training funds had diminished because of the withdrawal of the main funders, as a result of what Rwanda was going through. But it can't be denied, that the GADP planning was poor. Practical training in foreign countries in the form of courses or internship was positive, but is normally very expensive and became impossible when major sponsors were systematically withdrawing. It had been planned that training would be provided for 5571 people, but in the end only 3051 were trained, which means that the achievement rate was only 55% (Table 7-5). Furthermore, the content of the training programs was ambitious. The activities were too many to be achieved and the time was too short to cover the specific training needs required by beneficiaries and the organizations they worked for. As a result, the GADP failed to

contribute to an increase of farmers' knowledge and skills, which were needed for the management of their businesses and cooperatives.

Except in the case of general objectives, and a few specific objectives where comments are made, column 5 of Table 6-1 does not provide any information about stakeholders involved in specific activities, resources needed, and reports or documents required. This shortcoming could have resulted in delays in the executing of tasks and the delivering of materials, and it would have complicated the assessment of the achievement of the related objectives and the coordination of project activities. In addition to this, it is not correct to list, for a given objective, the same activity and objective (Table 6.1). Poor planning is indicated once again, and in this case too, an inability to objectively estimate resources and schedule project activities, along with inefficient use of resources, could have resulted in delays and conflicts among GADP stakeholders, all of this due to the lack of clear roles and responsibilities or lack of resources.

The available GADP documentation, which contains only a few documents, does not provide any further figures in relation to planned and achieved objectives. This makes it difficult to compare the two. The problem of documentation would be attributable to the mismanagement of archives for which the GADP had no specific place reserved. The genocide worsened the situation, because some documents were burnt during that period or dispersed outside the GADP offices and, as it was in the rainy season, possibly destroyed by weather conditions.

The poor structuring of performance indicators affected the GADP implementation (management and evaluation). It was an indicator of poor strategic planning because the organizational structure was inadequate and objectives and activities were not clearly defined. Table 6-1 shows that some activities were carried out, but without reference to planning, while others are missing. The problems surrounding the planning process were among the main obstacles to the project's implementation, control and termination. Bguyonb and GADP (1993) confirm this, because they too discovered weaknesses in the Follow-up and Evaluation Department, which was incapable of structuring adequate performance indicators. Recommendations were made to simplify the activities of the department and to reduce the indicators so that surveys could be concentrated on those actions that would affect necessary improvements in the project. The Public Health Agency of Canada (1996) highlights that the activities of planning, which include developing goals and objectives and setting budgetary requirements, demand a lot of time from project sponsors. Thoughtful planning activities include

the development of good success indicators and allow for continual commitment to the evaluation of impact issues as well as the adoption of realistic strategies and work plans in order to avoid project failure. In the case of the GADP, the success indicators should have been structured as indicated in table 6-2 below.

**Table 6-2: Suggested success indicators**

GADP Objective	GADP Activity	Success indicators	
		Performance indicators	Impact indicators
Introduce agricultural intensification	Introduction of agricultural intensification	<ul style="list-style-type: none"> <li>Value (\$) and quantity of cash crops (wheat, potato) produced and sold (tonnes, kg)</li> <li>Quantity of food crops (beans) produced (tonnes, kg)</li> </ul>	<ul style="list-style-type: none"> <li>Increase of income (\$)</li> <li>Increase of calories (Kcal)</li> <li>Decrease of diseases (rate)</li> </ul>
Raise livestock	Raising of livestock	<ul style="list-style-type: none"> <li>Quantity of milk (litres) and meat (kg)</li> <li>Number of cows, sheep, or goats raised</li> </ul>	<ul style="list-style-type: none"> <li>Increase of income (\$)</li> <li>Increase of calories (Kcal)</li> </ul>
Develop and distribute upland and valley bottom	Development of upland and valley bottom	<ul style="list-style-type: none"> <li>Land developed (ha)</li> <li>Land distributed (ha)</li> </ul>	<ul style="list-style-type: none"> <li>Increase of income (\$)</li> </ul>
Develop soil conservation methods	Development of soil conservation methods	<ul style="list-style-type: none"> <li>Number of methods used</li> <li>Land developed by each method (ha)</li> <li>Applicability of each method (satisfaction of users, ha of land protected)</li> </ul>	<ul style="list-style-type: none"> <li>Increase of income (\$)</li> <li>Better landscape</li> </ul>
Increase soil fertility	Improvement of soil fertility	<ul style="list-style-type: none"> <li>Increase of crops (tonnes, kg)</li> <li>Improvement of productivity (increase of crops by kg or tonne for each crop)</li> </ul>	<ul style="list-style-type: none"> <li>Increase of income (\$)</li> <li>Increase of calories (Kcal)</li> <li>Decrease of diseases (rate)</li> </ul>
Facilitate access to bank credit	Facilitation of access to bank credits	<ul style="list-style-type: none"> <li>Bank loans granted to the beneficiaries: <ul style="list-style-type: none"> <li>number of credit agreements,</li> <li>amount of value in \$,</li> <li>number of applications for credit,</li> <li>number of applications accepted / rejected, etc</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Creation of new project generating income (number of projects created and number of new jobs created)</li> </ul>
Carry out reforestation activities	Accomplishment of reforestation activities	<ul style="list-style-type: none"> <li>Forest and fruit trees planted (number and type of trees)</li> <li>Fruit trees planted (number and type of trees)</li> <li>Land developed (ha)</li> </ul>	<ul style="list-style-type: none"> <li>Better landscape</li> <li>Increase of income (\$)</li> <li>Increase of calories (Kcal)</li> <li>Decrease of diseases (rate)</li> </ul>
Build stores, and construct and rehabilitate roads	Construction of stores, and rehabilitation of roads	<ul style="list-style-type: none"> <li>Roads construction and rehabilitation (km, usability)</li> <li>Stores construction (number of buildings, usability)</li> <li>Agreements signed with subcontractors (number of agreements)</li> </ul>	<ul style="list-style-type: none"> <li>Improvement of transport (number and quality of roads)</li> <li>Improvement of purchasing (number of new markets, reduction of delays)</li> </ul>
Train beneficiaries	Training of beneficiaries	<ul style="list-style-type: none"> <li>New knowledge in modern agriculture</li> <li>Improvement in using modern agricultural techniques</li> <li>Improvement of managerial performance</li> <li>Increase of agricultural productivity</li> </ul>	<ul style="list-style-type: none"> <li>Increase of crop productivity (Increase of crop per kg, tonne, litre, etc)</li> <li>Soil fertility</li> <li>Soil conservation and protection</li> <li>Improvement of nutritional status (increase of Kcal)</li> <li>Improvement of management skills (increase of profits)</li> </ul>
Carry out research and development activities	Accomplishment of research and development activities	<ul style="list-style-type: none"> <li>Reports (number)</li> <li>Publications (number)</li> <li>Domains of intervention (number and type)</li> <li>Partnership agreements (number)</li> </ul>	<ul style="list-style-type: none"> <li>New knowledge</li> <li>Enhancement of management and farming techniques</li> <li>Community development (housing, communication, health care, incomes, education, etc)</li> </ul>

Table 6-2 shows two kinds of success indicators: performance and impact indicators, which may be quantitative or/and qualitative:

- Performance indicators measure the extent to which the project has achieved the objectives.
- Impact indicators measure the changes introduced by the project.

Table 6-2 is presented to indicate ways of overcoming the weaknesses of the GADP in structuring its performance and impact indicators. Indicators, whether measuring the project performances or its impacts, can be qualitative (better landscape or improvement of health) or quantitative (number of roads constructed or increase of income). In the terms of reference of the GADP, some impacts were stated (reduction of food insecurity and improvement of nutritional quality of food) but their actual measurement was not indicated in any records or reports of the project. The Food and Agriculture Organisation of the United Nations (1999) found that the lack of impact assessment is an important weakness of project evaluation.

For the benefit of project planning and implementation and thereafter its evaluation, each goal must have its related objectives, which, in turn, are detailed into specific objectives. And each specific objective must have its related specific activities and indicators. Table 6-3 indicates a model that should be helpful in the processes of project planning and that clearly defines and structures the different elements, and their links, presented along the lines of Figure 6-2.

**Table 6-3: Model of structuring performance and impact indicators in the process of the project planning**

Goals (general objectives)	Specific objectives	Activities	Success indicators			
			Performance indicators		Impact indicators	
			Planned indicators	Actual indicators	Planned indicators	Actual indicators
Goal № 1	Objective № 1	Activity 1.1.0 Activity 1.2.0	Indicator 1 Indicator 2	Indicator 1 Indicator 2	Indicator 1 Indicator 2	Indicator 1 Indicator 2
	Objective № 2	Activity 2.1.0 Activity 2.2.0				
	Objective № 3	Activity 3.1.0 Activity 3.2.0				
Goal № 2	Objective № 4	Activity 4.1.0 Activity 4.2.0				
	Objective № 5	Activity 5.1.0 Activity 5.2.0				
	Objective № 6	Activity 6.1.0 Activity 6.2.0				
Goal № 3	Objective № 7	Activity 7.1.0				
	Objective № 8	Activity 8.1.0				
Etc.	Etc	Etc	Etc	Etc	Etc	Etc

The information about the GADP organizational structure, objectives and performance indicators leads to the conclusion that the project was not adequately planned and that this negatively affected its implementation. Other elements, which were overlooked in the process of GADP planning and which complicated the project implementation, involved external environment factors. These are dealt with in the following section.

## **6.4 THE GADP ORGANIZATIONAL ENVIRONMENT**

This environment involves political, economic, technological, cultural, climatic, ecological and demographic factors.

### **6.4.1 Political environment**

Political stability is one of the most important factors in the creation of a favourable business environment (The World Bank Group, 2007). This is because violent coups d'état, terrorism, and aggressive neighbouring states may endanger the lives of personnel and the profitability of investments (Hough, Neuland and Bothma, 2003). The war, broken out in 1990 in the northern region of Rwanda, negatively affected the project as it made communication and transport difficult. The many changes that occurred in MINAGRI in a short time also affected the systems of production and interfered with the long-term planning (GADP, 2001).

During this time, changes were made in several ministries. Government leadership was not stable. As mentioned early in this chapter, state leadership changes led to significant changes in the GADP leadership as well, because the project was under the direct guardianship of the Ministry of Agriculture, which was itself a target of change. Popular support for the government leadership decreased because of divisions among people. Even before the genocide, this division had a negative impact on the project productivity and that of farmers as there were frequent strikes and attacks, using grenades and bombs, in different parts of the country, including Gikongoro province, the GADP site. Less time was spent on productive activities as a result of the unrest and a disinterest among people in investing efforts in activities that might not be profitable.

In addition to the disturbed GADP leadership during 1990 and in the beginning of July 1994, political unrest interfered with the overall management and resources of the project. In fact, the period between the 1<sup>st</sup> October 1990 (the start of civil war) and the 6<sup>th</sup> April 1994 (the day just

before the genocide began) was extremely difficult for the Rwandan community, but also for the GADP. The GADP accommodated refugees from the north of Rwanda, running from the war. They needed to prepare meals and keep warm. They had no source of energy other than the forests, planted by the GADP, and they left the area a desert. This contributed to the reduction of rainfalls and caused droughts in Gikongoro. Refugees attacked also farmers' crops because they were in need of food. Their massive presence in the project area led to an increase in crop prices, which affected the life of the local community. Farmers were particularly affected because their purchasing power was reduced to the point where they battled to survive and could not afford to buy farming inputs. These combined factors resulted in regular famines and great poverty.

From the 7<sup>th</sup> April to the 4<sup>th</sup> July 1994, there was only the horror of the genocide. Within just 3 months, almost one million of people were killed, countless livestock were killed, and resources (buildings, equipment, etc) destroyed. Most of the GADP employees were killed, others fled the country. Some of its resources were destroyed; others were taken by the killers. The reopening of the GADP in 1996 was very difficult as the project started with only a few resources (people, funds, office equipment). In consequence, the objective of increasing crop and livestock production was not achieved.

#### **6.4.2 Ecological environment**

This section is mostly concerned with the ecological dimensions of land degradation. According to Levin (2001:74), land or soil degradation is the decrease or loss of its economic or biological productivity and complexity. The reduction in the complexity of the land refers to the system's major physical restructuring that is symptomatic of land degradation. In dry lands, this includes erosion and sedimentation by both water and wind, resulting in a redistribution of topsoil, compacting of the soil, loss of soil silt fraction, dune formation, and arroyo cutting. There may be shifts in natural fire cycles with a disruption of biogeochemical cycling, including the redistribution of essential nutrients, decreased efficiency of nutrient cycling, and increased nutrient losses from the system.

In the context of the GADP, as the soil in Gikongoro was acidic and subject to erosion, two main activities were undertaken and achieved, which aimed to keep the soil fertile through land fertilization and to protect it against erosion. The GADP (2001) states that the project promoted fertilization of land because it wanted to make land more productive. The project was given popular dissemination through radio, TV, media, meetings and training sessions to get farmers to



take part in this activity and to make the soil more fertile by using organic and chemical fertilizers. The organic fertilizers were produced by the farmers themselves by composting domestic animal waste, household waste and decaying plant material, while chemical fertilizers were industrially produced.

In relation to soil protection against erosion, GADP (2001) states, that the project had changed the landscape of Gikongoro through reforestation. This provided a solid foundation in the struggle against erosion and resulted in increased incomes from the sale of forestry products to households, schools, etc. as a source of energy. The project helped to prepare anti-erosive ditches and terraces and in reforestation. The action was financially supported by the GADP with a very small contribution from the beneficiaries (farmers). It provided farmers with free fruit and forest trees. Later, in the high altitude region, this support was withdrawn because of financial constraints of the project and fertilizers now were sold to farmers. This decision caused feelings of unhappiness among them, because the donated plants had helped to protect their land from erosion, while the fertilizers were too expensive in relation to the farmers' purchasing power. Furthermore, the farmers had lost some of their confidence in the GADP after 1991-1992, when the project had introduced seed potatoes, which were infected by bacteriosis. The objective of soil conservation and fertility was, due to these various reasons, ultimately not achieved.

This experience of the GADP with the farmers illustrates the importance of cooperation between projects and stakeholders. Although the GADP started to have financial problems, collaboration with the farmers could have continued, had there been adequate communication as before by means of popularization of activities through meetings, radio or other media. The GADP could have explained the reasons for the change and bring home to the farmers that the project was their own property and that they should share in its benefits and its risks. The project should have been more conscious of its role in educating people so that they could better adapt their way of living to ups and downs in terms of market prices.

Communication, negotiation and facilitation processes are factors that should be highly rated in the managing of change (Mackay and Horton, 2003), because collaborative and participative action increase the stakeholders' understanding of the project (O'Sullivan (2004:23). Moreover, Rwandan people normally work hard and are cooperative. The GADP should have taken

advantage of this work ethic and culture, and avoided free inputs altogether. That the project did not do so undermined development efforts at individual and at project level.

### 6.4.3 Climatic environment

According to Sembajwe et al. (2006), environmental degradation, food insecurity and declining agricultural productivity are the main causes of increasing poor quality of human life and growing poverty in Africa. The increasing rate of population density is one of the factors that intensify environmental degradation. As rural people rely on agriculture for their living, the severity of their poverty is closely related to the decline of natural resources (forests, rainfall and water). The shortage of these resources results in diminishing agricultural productivity and subsequent decrease of income. That is exactly what has happened in Rwanda, especially in Gikongoro province. Table 6-4 shows how rainfalls have decreased as a result of the effects of human behaviour on natural resources.

**Table 6-4: Rainfall (in mm)**

Month	1996	1997	1998	1999	2000
January	67.8	49.5	202.3	262.1	88.9
February	257.6	180.5	229.7	32.6	168.3
March	124.0	148.1	145.3	289.3	151.5
April	61.2	231.5	202.5	160.8	129.8
May	74.6	173.0	114.3	88.4	53.8
June	71.2	64.0	33.5	1.9	5.3
July	17.9	0.0	13.7	0.0	0.8
August	86.0	12.8	5.9	151.9	10.7
September	17.4	43.9	114.5	121.0	41.9
October	127.7	134.7	173.8	70.8	94.1
November	43.5	170.5	63.9	178.4	258.7
December	119.4	180.7	134.7	146.5	129.2
<b>Annual total</b>	<b>1068.3</b>	<b>1389.2</b>	<b>1434.1</b>	<b>1503.7</b>	<b>1133</b>

Source: GADP (2001).

The weather was not good in the years 1996 and 2000. Table 6-4 shows the decrease of rainfall in mm per year in comparison to the years 1997, 1998 and 1999. This had an impact on food and cash crops (in quality and quantity), especially in 2000 when drought affected Gikongoro severely. In the context of the protection and conservation of natural resources (land, forest, water, etc), the respondents (8 farmers) of the current study said, that some achievements had been made in forestry activities (forestation and forest maintenance), terracing, actions against erosion and for fertilization of farmland. This would contribute to reduce the risk of bad weather. However, these farmers indicated that problems arose in the following areas:

- Farmland was too small to accommodate all activities of conservation and protection of natural resources;
- Lack of equipment, required for activities related to the conservation and protection of natural resources due to lack of financing, and which also impacted on production levels;
- People were not paid by the GADP for work done in developing valley land;
- General lack of financing which resulted, in turn, in problems with constructing dams, and a lack of water needed when rainfalls were not enough.
- Bad weather had a negative impact on the harvest (decrease of production);

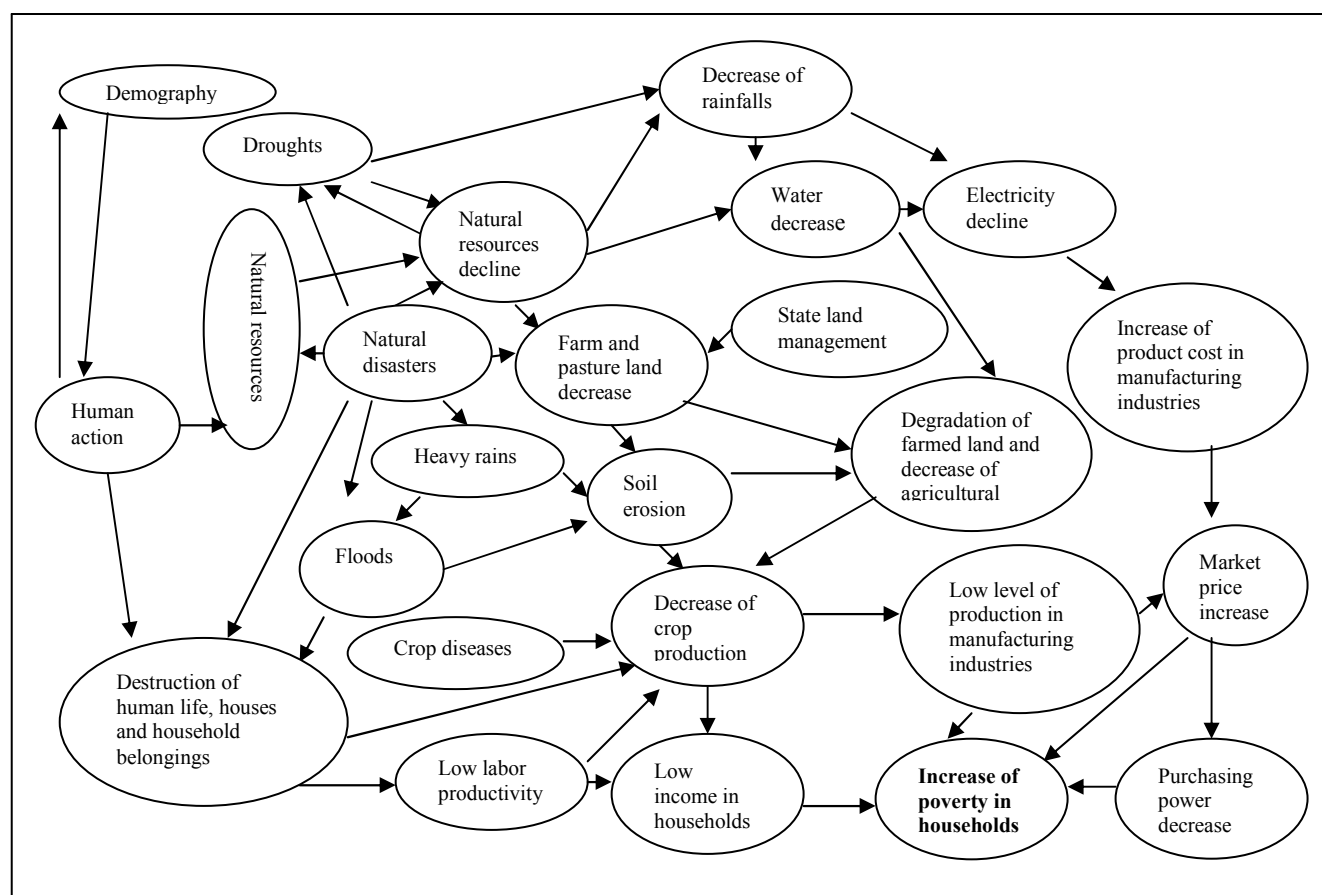
The government of Rwanda is worried about environmental protection (Bugingo and Habumuremyi, 2007). In this regard, during an interview carried out in Development Gateway on 6<sup>th</sup> June 2007, the Rwandan Minister of State in Charge of Lands and Environment explained how the government of Rwanda is dealing with unpredictable climate change and its effects, and adjusting to global warming, notably through better water management. She focused on water decrease as the result of degradation of land and of soil erosion that contributes to the decline of rainfalls and the higher maintenance requirements of lakes, rivers, and marshlands. She said that the decrease in available water has negative implications for the national economy and the biodiversity, particularly affecting agricultural productivity and the supply of electricity, and she had depleted the government budget used to cope with these emergencies. The poor supply of electricity has contributed to the increased production costs of manufacturing industries which makes goods and services more expensive. Frequent floods have swept away homes, personal belongings and livestock, and were the cause of some human deaths.

The effects of global warming are increasing, as the average temperature continues to rise. For instance, the average temperature went from 32.4°C in 2002, to 38°C in 2005. The northern-eastern region (Bugesera and Nyagatare) of the country was worst affected. In the past, it was possible for Rwandans to predict the right time for planting and harvesting. But this is no longer the case. The minister went on to say that the challenges for the government today are to sensitize people about global warming so that they are able to adapt to this situation. Because the climate change is not predictable, people have to adopt new agricultural techniques that require less water (water resources management) and fight against erosion by planting trees, covering soil and preserving forests (Bugingo and Habumuremyi, 2007).

This strategy, if applied, might prove to be a good way to counter the effects of the changing climate environment, because recent studies project that a doubling of atmospheric carbon dioxide (due to the rapidly expanding human population and associated activities) would result in lower precipitation, as well as shifts in the timing and frequency of rains, in the interior of large continents (Williams and Balhing, 1996 quoted in Levin, 2001:74-75).

This is exactly what happened in the Gikongoro province as mentioned in section 5.4.1. Gikongoro is one of the regions of Rwanda that are affected by natural disasters such as floods and droughts, mainly as a result of human action (deforestation). These plagues have regularly caused severe famines and increased poverty in the region. Figure 6-4 indicates some causes of climate changes and their impact on poverty.

**Figure 6-4: Some factors of climate changes and their impact on agricultural productivity and poverty**



Natural disasters such as strong winds, earthquakes and volcanic eruptions, may cause changes in weather (droughts, heavy rains and floods). Human actions (Figure 6-4) also can cause some of these changes, for instance when people deplete natural resources such as forests and water. Whether they are caused by natural disasters or by human behavior, changes in climate affect the development of the population, which requires healthy environmental, economic and social conditions

As Figure 6-4 indicates, natural disasters and a decrease of natural resources cause diminishing rainfalls with resulting water decrease. The shortage of water reduces the supply of electricity for manufacturing industries, with the effect of increasing the production costs and decreasing the level of manufactured products. Crop diseases, diminishing rainfalls and hence, decline of available water (for irrigation), also lead to a decrease of crop production and this in turn reduces the production in manufacturing industries. The higher production cost and the low level of manufactured goods lead to a rise in market prices, which in turn, impacts negatively on the purchasing power of people. This chain of occurrences intensifies poverty. Furthermore, droughts and floods destroy human lives, their property (houses, domestic animals and agricultural equipment) and crops in the fields. The reduction of crop harvests further negatively affects the state and household economy, as described above.

The GADP faced some of these problems. Section 6.4.1 indicates how people in Gikongoro contributed to the depletion of forests. Their actions caused regular droughts, famines and poverty in the region, with further consequences for the national economy. This complex situation indicates that, for sustainable human development to be possible, people have to live in perfect harmony with their natural environment because being its enemy means hurting themselves in the short and the long term. The lack of resources (money and equipment) and water management strategy, along with poor climate conditions, adversely affected the achievement of the GADP objectives of increase of crop and livestock production, reforestation, soil fertility and conservation, and improvement of diet.

#### **6.4.4 Demographic environment**

The demographics of Gikongoro province have changed dramatically in the period of 1991-1996. Table 6-5 shows the fluctuations in population numbers and the effects of unrest and displacement for that period.

**Table 6-5: Number and movement of population in Gikongoro over the period 1991-1996**

<b>Year</b>	<b>Total number of population</b>
1991	466 576
March 1994	511 038
1994: decrease in number: dead and refugees	115 208
1994: population displaced to Gikongoro Province	354 037
1994 (at the end): resettlement	748 438
1996 (April): new situation	400 767
• Males	187 883
• Females	212 884
• Households	93 335

Source: GADP (2001).

From 1991 to 1996, the size of the population in Gikongoro varied. Up to March 1994 there was an increase (influx of refugees), followed by a decrease in the same year when the genocide occurred and people fell victim to ideology or ethnic identity. Of the survivors some left the country. Others relocated from their different provinces to Gikongoro province, hence the different figures in that year. At the end of the year the new government tried to resettle people in their homes. The population started to increase from 1996. In 1996, females outnumbered males. This is because most men were killed and others fled the country, whereas it was more difficult to flee for women with babies and pregnant women. The demographic changes had bad implications for farming activities and the GADP. They also caused people to destroy forests in search of wood. The wood was a source of energy (fire for cooking and heating) and of charcoal for generating family incomes. The deforestation resulted in the dramatic reduction of rainfall patterns as mentioned in Figure 6-4.

This is in accordance with Levin (2001:75-76), who affirms that in large areas of Africa, civil strife and government policies are key factors influencing resources (land, wildlife and water), degradation of land, and food security. Civil conflict displaces many people from their homes, who frequently move to other poor regions. They leave their land unattended, losing their original management systems and they begin a new life, using the farming and ranching methods that they are familiar with but that usually are not suitable to the new environment. In some countries, government policies have promoted the establishment of human settlements in the water margins of barren and semiarid lands or close to water supplies. The use of land has led to conflicts between human settlements, agriculture, wildlife and livestock, as a result of the interference of agriculture with lands usually reserved for domestic stock.

Often, this intrusion of agriculture is the result of the population increase with bigger households, which leads to a reduction of available farmland. This was one of the problems faced by the GADP when developing land in the lowest lying valleys and at high altitudes. Table 6-6 for example shows that the average household counted about 5 members. The average size farm plot could not have satisfied the needs of a family that size.

**Table 6-6: Demographic data in 1991 in the project zone**

Total number of population	238 281
Land available (ha)	76 470
Number of households	50 292
Available land per household (ha)	1.52
Members per household	4.7

Source: GADP (2001).

Table 6-6 indicates that available land per household was 1.52 ha for almost 5 people per household. As seen earlier in this chapter, the population density is very high: 250 to 400 inhabitants /km<sup>2</sup>. Besides, the land is of too poor a quality to produce satisfactory crops. This may be one of the causes of chronic poverty in the region. According to IFAD et al. (1993), food insecurity in Gikongoro was due to the increasing number of small farmers, not able to sustain themselves on less than ½ ha of farmland. In addition, women headed almost 40% of farmer households as a result of migration caused by the war and the genocide. Rural young people and households of older people were particularly affected. The decrease of the productive labour force and the unequal distribution of farmland resulted in poor agricultural productivity, decrease of food and market crops, and low family income. This adversely affected the economy and livelihoods of the community of Gikongoro.

Besides the increasing growth of the population and the decreasing amount of arable land, the complexity of the land problem is also due to the unequal distribution of land as seen in section 6.1.1. So, the GADP project was well placed to develop farmland in order to help solving the chronic problem of food insecurity and poverty in the region, because, in general, there is a close relationship between productivity and land farmed as Table 6-7 indicates.

**Table 6-7: Farmland estimated for agricultural production in Gikongoro Province in 1998-1999**

Crops	1998			1999		
	Land farmed (ha)	Production (Tons)	Productivity (kg/ha)	Land farmed (ha)	Production (Tons)	Productivity (kg/ha)
Sweet potatoes	23 908	127 165	5 319	24 308	129 708	5 336
Cassava	3 439	264 400	7 677	3 509	26 948	7 680
Potatoes	3 440	18 745	5 449	3 510	19 127	5 450
Bananas	7 370	16 315	2 214	7 521	16 648	2 213
Beans	21 453	3 532	165	21 891	3 638	167
Peas	11 796	3 329	282	12 036	3 496	290
Soya	4 101	1 664	406	4 185	1 748	418
Sorghum	11 638	7 498	644	11 876	7 647	643
Maize	9 908	7 128	719	10 110	7 484	740
Wheat	756	754	997	771	776	1 006

Source: GADP (2001).

The table shows that productivity generally increases as more land is farmed. As the size of the population rises, the number of small farmers also increases, but this is accompanied by a decrease of pasture and farm land. Therefore, the development of land at high altitude and in the marshland in the valleys was justified.

However, although the programme was profitable for the local farmers, it was abandoned. In addition, due to human action (war and genocide), the Rwandan demography changed rapidly, impacting gender division. Males were particularly targeted by the tragic events. Many of them were killed, others exiled to foreign countries, and others again, suspected of having been involved in the genocide, are in jail. The situation has considerably reduced the productive workforce. As a result a great number of households are headed by women, who have become breadwinners. They have to look after children, fetch water, gather fire wood, etc. These various activities did not allow them to devote much of their time to income-generating activities, which could help them to pay school and medical fees, improve shelter and health conditions and to increase savings for future investment in other activities that could generate additional income.

The post-genocide period was characterized by rapid population growth. This was understandable, because among the dead had been many children who are by the Rwandan community considered precious. People tried to have as many children as they could to fill the gap, left by the genocide. Also the improvement of health conditions contributed to the population growth. Access to potable water and adequate latrines, and improvement of diet



contributed to the population's fertility, and reduced the rate of diseases and deaths. Better health conditions were a leading factor when it came to improving agricultural productivity, needed to cover the needs of larger families. Unfortunately, because the population growth was increasing much faster than the agricultural production, the arable and pasture land diminished. As Gikongoro is a hilly region, and as the increased population needed more farmland and firewood, they chopped down planted and natural forests (their own as well as public property) and abused pasture land. They also cultivated hilly sides which resulted in soil erosion as Image 6-1 illustrates, which reduces agricultural productivity as shown in Figure 6-4 and exacerbates poverty. Thus, these demographic changes impacted negatively on the achievement of GADP objectives in relation to the increase of the crop and livestock production, environment protection (reforestation, soil fertility and conservation), improvement of the quality of diet, and income generation.

**Image 6-1: Deforestation effects on the productivity of the farmland**



Source: Results from the field research (direct observation).

The picture shows how deforestation impacts on the productivity of the farmland. The erosion, consequence of deforestation, on the mountain Uwaruhago carries soil away into the valley. During the great rain season, as a result of erosion, heavy mud covers the fertile valley land, which in turn also becomes less productive. The land in the hills suffers the same consequences from the same actions.

Development of people implies that, through good governance, they try to prevent conflicts and where these arise, solutions are brought about as soon as possible because conflicts lead to undesirable changes in demography that impact on natural resources and on household and

state economy. There is a need also for education with regard to family planning, so as to balance the population size and production in order to avoid or minimize the above-mentioned problems.

#### **6.4.5 Economic environment**

As Hough et al. (2003:138) write, the purpose of economic analysis, is firstly to evaluate the overall outlook of the economy of a country, and next to assess how change in the economy impact on a firm. For the case of the GADP, IFAD (1993) states that the project was implemented in the period when the Rwandan economy was shaky and characterized by sharp fluctuations of inflation rates and interest rates on bank loans. The project had serious problems in the markets and production areas. In fact, the production decreased because agricultural activities were not profitable due to bad quality seeds and diseases that affected the crops, particularly potatoes. Despite the decrease of crop harvests, still the markets were too small to accommodate the wheat and potato harvests and farmers were not satisfied with the prices proposed by the GADP. In these circumstances, the project decided to privatize seed and plant nurseries but in vain. IFAD (1993) indicated that the contractual relationships between the GADP and Cooperative Banks (CBs) were not satisfactory because CBs were not interested in social and economic development in the rural sector which was not formally regulated. Investment in that sector was not profitable and its financial situation was not good as a result of bad debts that could not be recovered even though the GADP tried to cover them. Consequently, the number of farmers eligible for new bank loans was reduced. Not only was the rate of repayment failure increasing, but in addition, some individual farmers and cooperatives had invested the loans in activities (for instance livestock), other than those for which they had requested the money and the harvests were not good enough to guarantee repayment.

Although the Rwandan economy was not in a favourable position, the crux of the matter is that the GADP had not taken its planning process seriously enough, with consideration for environmental changes and with measures to prevent crop diseases, using insecticides and so on. Although farmers needed support to get bank loans, and it was up to the GADP to intercede with the banks on behalf of the farmers, the project should have avoided taking responsibility for the payment of outstanding debts of farmers because it was not its mission to do so. This was an indicator of waste and bad management of financial resources. Loans arrangements should have been applied as agreed on between farmers and banks and the GADP. Before implementing the GADP, a thorough feasibility study should have been undertaken to objectively evaluate its

potential upstream and downstream markets, and the production capacity on the basis of which the chances for success could have been determined. The GADP failure to achieve its objectives is attributable not only to the war and genocide, but also to inadequate planning, which did not sufficiently consider the environment and make thorough risk analyses. .

IFAD (1993) confirms this problem, saying that the project duration was short and income levels were not impacted much. There was a lack of definition of the GADP scope and a lack of clear planning and implementation. Then, there was the attempt of the GADP to integrate women, who constitute an important proportion of the economically productive workforce, by means of recruiting them at 30%. But this strategy did not guarantee that women, specifically carrying out farming activities, would be among the 30% integrated into the project. Women's integration throughout the GADP life cycle was meant to be reflected in the levels of their participation when it came to identifying and meeting their needs, for example in relation to the starting up of businesses, job creation and income generation. Bguyonb and GADP (1993) add that crops were affected by several factors notably political unrest, climatic conditions (droughts), and diseases. The demographic issue was crucial as well, with the rate of population growth increasing rapidly. The number of cooperatives grew, but at the same time the land to be distributed to those cooperatives diminished. The problem of food and market crops was meant to be solved through new farming technology by the Research and Development Department of the GADP in collaboration with ISAR. Unfortunately, the department paid little attention to farming technologies. Even though some training programs were offered, the farmers did not put them into practice.

The GADP had been thought of as operating in a stable environment, but this was not the case. In a globalized world, managers have to take the analysis of national and international environments very seriously. This is in accordance with Hough et al. (2003:138-139) who state that environmental analysis for a specific country provides useful information in relation to the trends of economic growth (patterns of production and consumption, purchasing power, banking services, levels of income and saving, foreign debt, inflation, exchange rates, and so forth), demographic growth, culture and technology. The information provided by such an analysis, if properly applied, has a positive impact on management systems of businesses and project-based organizations.

## 6.5 CHAPTER SUMMARY

The GADP started in 1990 with important financial support and sufficient infrastructures from previous, similar, agricultural development projects. However, for some stakeholders, active participation proved not effective. Others gradually withdrew their financial support from the GADP. Strong leadership came only very late when the project was about to close down. At the beginning of implementation the leadership was affected by the reorganization of the project, along with the tragic events in Rwanda. The project suffered from an inadequate organizational structure, which probably affected the GADP leadership and management as well. This was manifest in the way the project objectives were set. For example, objectives such as an increase of animal production to enhance diet equilibrium and generate rural income for each person, and reinforcement of research and development, were set as short-term objectives. This made the objectives unrealistic, considering the long period they required to be achieved and the environmental factors that affected their implementation. During the phase of project implementation such objectives would have been unworkable because of the huge amount of resources and time they need. The history of the GADP indicates that the project experienced serious problems from the very beginning. External environmental factors and inadequate planning were at the heart of the problems. The GADP's problematic organizational structure and objectives hampered a clear identification of realistic activities. The project was involved in too many activities to carry out. When activities are not realistically identified, it becomes difficult to structure performance and impact indicators, those planning tools which, throughout the phases of project implementation and termination, determine whether activities book success.

The GADP environment was not friendly. Environmental factors were so interconnected that any one of them could affect the others. An example are the changes in demography caused by political unrest; the demographic changes caused climate changes, which in turn reduced farm and industrial productivity leading to an increase of market prices. The overall effect was the increase of poverty (Figure 6-4). As the GADP was a development project, it would have been imperative to consider the effects of the environment on the attainment of its objectives, although some events (political unrest) were uncontrollable. As seen in Figure 6-3, integration of the environment in the processes of planning, is essential because of its impact on the project planning and implementation. The environment may present opportunities as well as risks and the strengths and the weaknesses of the project must be evaluated, before one can expect to set

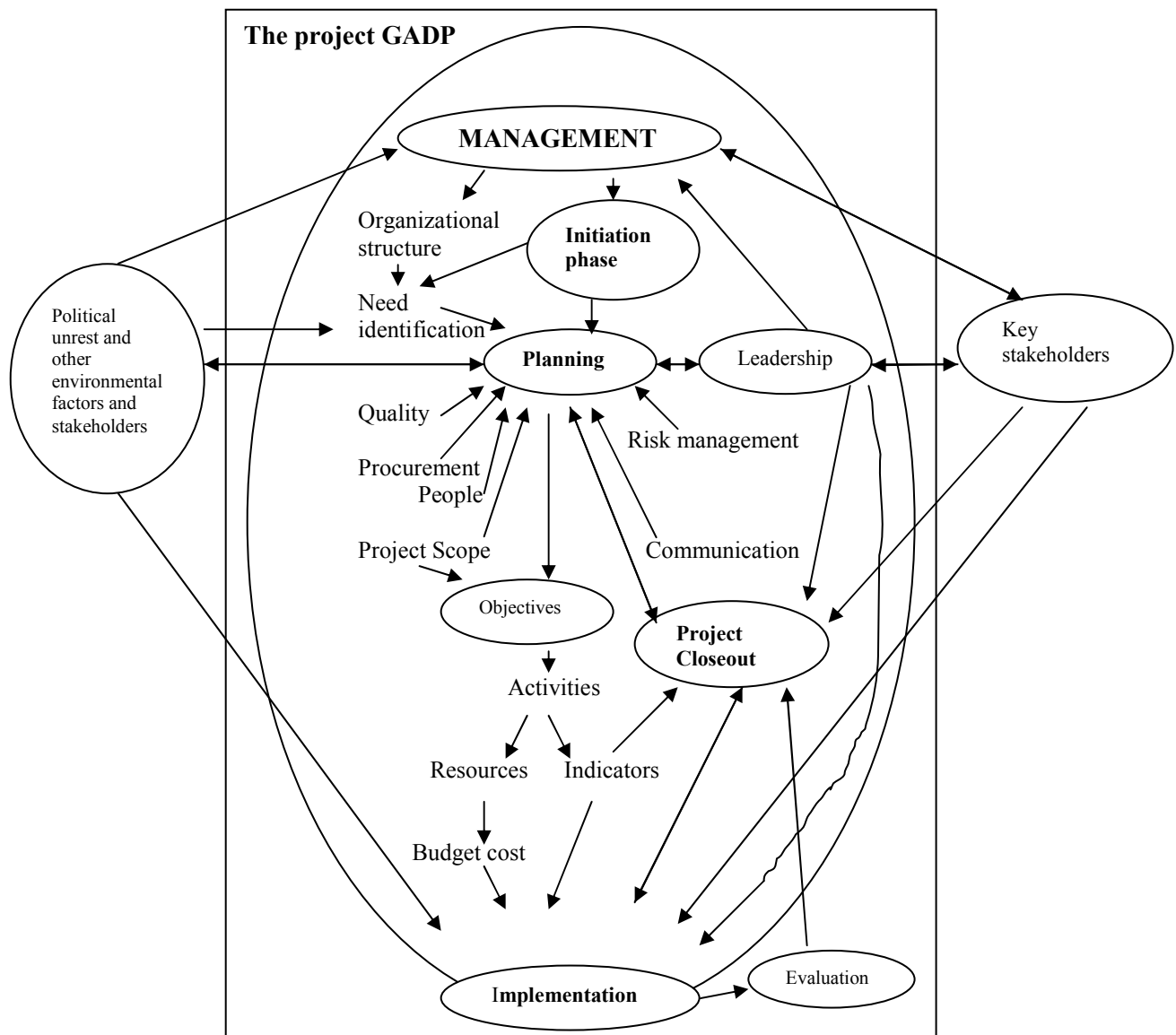
realistic objectives, identify achievable activities, objectively estimate resources and budget, along with realistic performance and impact indicators. It is obvious that unforeseen events may interfere with project implementation, but careful planning can help to cope with them.

This chapter deals with the historical background of the GADP, the organizational structure, objectives, indicators and environmental factors. In many ways, the GADP planning and environmental factors are referred to as factors that led to the GADP failure. But other factors such as management of partnership relationships, also contributed to that failure and are dealt with in Chapter Seven, which assesses the GADP management.

## CHAPTER SEVEN: ASSESSMENT OF THE GADP MANAGEMENT

The focus of this chapter is on key management processes of initiating, planning implementation and closing-down of the GADP. The main themes developed, include the complexity and uncertainty of the environment, priorities and boundaries of the GADP, planning, stakeholder identification and partnership management, management of time and resources, training, participatory development and communication. Figure 7-1 is used as a framework to assess how the GADP was planned and implemented.

**Figure 7-1: Factors that affected the GADP throughout its life cycle**



## **7.1 INITIATION PHASE**

As seen in Chapter Six, The GADP carried out many activities in the areas of agriculture and non-agriculture to meet the needs of various stakeholders, which involved farmers, government authorities, banks, and contractors, international and national organizations. However, the project was not able to carry out those activities, which were too many compared to the limited resources and were performed in turbulent environments. It was difficult for the project to coordinate them as a result of the poor definition of priorities and boundaries of the project.

### **7.1.1 Definition of priorities**

It is obvious that the GADP experienced problems in the setting of priorities and in directing its activities so as to be in line with the real needs and constraints of farmers with farmland of less than 0.50 ha. Nothing special was done to improve the production systems and livestock rearing through adequately organized cooperatives with large scale services such as vaccination and treatment for the prevention of disease among livestock (IFAD, 1993). Difficulties in the popularization of farming know-how were partly due to the hard times faced by the country from 1990 onward, but also to the policy of subsidies and the lack of clear definition of project activities. The integration of specific groups in the project such as women, middle scale and small scale farmers, who represent 90% of the population, and the establishment of mutual societies were meant to be among the GADP priorities. The participatory approach was not adopted in the project (IFAD, 1993).

The definition of priorities is possible when project objectives are clear, activities and stakeholders are well defined, the boundary of the project is well drawn, and the internal environment and external environment of the project are clearly identified. The definition of priorities requires that the project planner has all the relevant information about the internal and external environment and that he is aware of:

- his own strong points such as knowledge, motivation, experience and adequate resources;
- his weak points in relation to inexperience and lack of skills and scarce resources;
- opportunities that may involve healthy economy, partnership and access to information;
- risks which would be associated, for instance, with political unrest, bad economic conditions and inflexible legal requirements.

The project planner is supposed to have a sound knowledge of the real needs in the area, and of the people who would be engaged in the project, and to be clear on what he wants to do in terms of objectives and activities. Building on this knowledge he can construct scenarios from which he can later draw the one, applicable to a specific situation he is faced with.

The project scope is therefore one of the most important decisions to make in the planning of a successful project. It involves determining which are the correct, precise tasks to be performed, and which less necessary tasks must be put aside. This helps with the realistic estimations of resources and budget.

### **7.1.2 Definition of project boundaries**

The GADP was involved in many activities of an agricultural and of a non-agricultural nature. As Bguyonb and GADP (1993) state, it was in such circumstances that the project of micro-enterprises was initiated. These enterprises had to be profitable and generate new jobs in rural zones. This required encouraging the transformation and commercialization of agricultural products, providing support services for the exploitation of farms, and developing smaller, non-agricultural small activities, which could earn additional income for small farmers. It was, however, difficult for the GADP to coordinate these activities. Therefore, it was recommended that the GADP leave micro-enterprises to the PAIB (Supporting Program for Basic Initiatives), cooperate with ARDI (Association for Integrated Rural Development) in the context of seeking new approaches to the development of non-agricultural activities, and create an environment of consultation with different role players such as ARDI, PAIB, etc, operating in Gikongoro. The GADP was to encourage IFAD to finalize the project of supporting rural micro-enterprises and implement it in Gikongoro Province. In this regard, IFAD (1993) asserts that as one of the main funders of the GADP, IFAD was advised to stop the upland development component and its relations with CBs. IFAD should revise and redirect the program of agricultural credit.

Furthermore, during the first four years of the implementation, from 1990 to 1993, the project operated without a framework, but on the basis of development objectives, which were integrated in the national strategy aimed at food auto-sufficiency. In implementing that policy, the project focused on objectives that were based on technical enhancement achieved, and on needs expressed, by the producers (farmers). In addition to this, because of the genocide in 1994, the years immediately after 1994 left the project with no planned work. It was in June 1996 that consultation between different key stakeholders outlined the project framework which became



reality in 1998, just after a participative workshop held by the GADP with its stakeholders (GADP, 2001). Unfortunately, this framework could not be found in the documents of the GADP.

These examples are indicative of the serious problem that the GADP experienced from the beginning to define its scope (objectives and activities) and identify resources and key stakeholders, their real needs, roles and responsibilities. This certainly resulted in a poor feasibility study and inadequate planning of the project which in turn affected implementation. It is no doubt very difficult to implement any project for which no adequate planning exists and that is not based on realistic objectives and thoughtful selection of activities and resources. The GADP was, besides, involved in so many activities that it was beyond its capacities. Hence, being unable to coordinate the activities during the implementation phase, the GADP decided to subcontract them to other organizations, which however failed to carry them out. Failure of the GADP was inevitable as a more considered framework of planning came into being only late in 1998 towards the end of the project. It is unfortunate that that document could not have been a guide for the GADP stakeholders, from right beginning until the end.

## **7.2 DESIGN AND DEVELOPMENT PHASE: THE GADP PLANNING**

As figure 7-1 indicates, planning involves many elements. There are environmental factors, perspectives of different stakeholders, leadership and project management areas such as scope, cost, activity scheduling, quality of a product or service, human resources, procurement, communication and risks. These elements help to set the project objectives, identify activities and resources, and structure performance and impact indicators as seen in Chapter Six (section 6.3). In that sequence the estimation of the project budget logically follows. The output of the planning process is a baseline plan which is implemented to achieve the project objectives and meet the needs of the project stakeholders. The baseline includes the project areas of project management such communication, procurement, quality, risk, cost, and human resources.

Communication is very important condition for the project's success, as it determines who are the people to communicate with, the way to communicate with them and what information they need in which specific format and in what language. Communication planning has a significant impact on project planning, implementation and completion. In many cases, poor communication results in inadequate planning, lack of coordination of activities and conflicts.

Procurement plays a great role in project planning. The failure to value procurement in this phase causes poor quality of product or service delivery and overall delay of the project which often results in budget overruns and waste of resources.

Quality of product or service is at the heart of planning, because it concerns the very output, the *raison d'être*, of the project. The quality of product or service influences other project management areas (communication, scope and procurement). Risk is an important factor to consider as well, because the degree of the environmental uncertainty may be so high that predicting the future is not easy. That is why collaboration between various stakeholders is essential. It involves the maximizing of knowledge, through the sharing of knowledge, experience and past and present information in order to seek potential alternative options that can be implemented to cope with the uncertainties and complexities of the environment. All these elements should be well integrated into the project planning process whereby the leadership is present from the very beginning to guide and motivate people in a process that will affect the project during its entire lifespan.

Here are some of the reasons why projects need plans. A project plan (Newbold, 1998:104) can be useful to determine whether the project makes sense to undertake, to evaluate the project impact on other projects, to allow for coordination of activities, to sell a project internally and externally, to, among different projects, prioritize some for resource allocation, to assign jobs to specific workers, and monitor project status. Newbold (1998: 103) asserts that a planning process needs to come up with clearly stated project objectives and a project plan, determine the needs to be met, and the tasks needed to meet these. It determines the logical relationships between tasks and needs and estimates resource requirements, task durations, and costs. If necessary, it goes back to an earlier step and revises the plan. Frigenti and Comninos (2002) add that the areas in which the project plan must be viable are time, resources, costs and finance.

For the case of the GADP, planning was confusing. The numerous risks of the GDAP are not indicated in any GADP documents either, although the project was confronted with an environment characterized by a high degree of complexity and uncertainty. It is possible that risks were simply never assessed and integrated in the GADP planning.

During an interview for the purpose of the current study, the agronomist B who is employed at district level said: "Each department planned and established its own budget for the following year. Then the budgets, set at the department level, together with those established at the district

level, were centralized at the GDAP head office in order to attain corporate budgeting and planning. The planning was participatory in that it started from the districts and continued to the highest level of the GADP. Then, the document was submitted to the Rwandan government and the main sponsors for approval. Once approved, the final document was regarded as a baseline plan which had to be implemented as such. The action plan was also elaborated on the basis of the evaluation done the previous year.”

It was stated that the planning was participatory. But the quality of planners at the district level may well have been questionable with regard to their qualification and skills in project planning. They apparently were not aware that starting planning at the lowest levels, continuing to the highest level of the GDAP hierarchy, does not necessarily mean that all stakeholders were represented and actively involved in the process. The evidence is that farmers complained they were not involved in GADP planning and their needs were not taken into consideration. In this regard, the Governor K of the Gikongoro and 14 farmers assert that they had not played any role in designing and planning the project. The suggestion was that the starting point of a project, before it is implemented, must be based on clear project objectives, sound conception, and obvious utility of the project at local and regional level, this to avoid failure. Project objectives should be realistically set after consultation with stakeholders and more specifically with the targeted beneficiaries of the project, so that there is full awareness of their real needs. Projects should keep promises made to farmers, and controllers and evaluators of projects have to make sure of this. There is a need to respect the timeframe determined for the execution of project activities (time management). Projects have to collaborate closely with those cooperatives whose members are literate.

These are basic suggestions. Dealing with illiterate people (especially farmers) would pose problems to a project such as the GADP. Farmers were among the main beneficiaries of the project. They need knowledge about modern farming techniques. Illiteracy would have slowed down the learning process, whereas it is imperative for farmers to get a quick grasp on what they learn and implement the new knowledge so as to increase the productivity of their farms. Furthermore, they need to gain knowledge and skills in cooperative management so that they can manage their cooperatives independently to reduce labor costs and minimize risks of embezzlement of funds by hired employees. It is apparent that education is a crucial aspect of development in which big efforts have to be invested.

The chances of the GADP reaching sustainability would have been much better, had the project based itself on effective communication and true cooperation with its stakeholders. There should also have been special encouragement to respect agreements, for, if during the phase of project implementation, agreements are not respected, there will be delays in procuring orders of materials and in executing the project tasks. Such a situation inevitably leads to budget overruns. Cases of legal penalties might not have occurred in the GADP, but sometimes they do occur and are very expensive in terms of money, time and distrust.

### **7.3 PHASE OF IMPLEMENTATION**

Management and leadership need to be given the greatest consideration, not only in the planning phase but also during the implementation. The GADP leadership is dealt with in Chapter Six. This section is focused specifically on the GADP management of resources such as time, human and financial resources and infrastructures and partnership among stakeholders. The participatory development approach is also considered.

#### **7.3.1 Time management**

Time management is directly associated with activity definition and schedule. If the project activities are not clearly defined or if there are activities missing, it becomes very difficult to objectively schedule them. The lack of clarity and objectivity has direct implications for the overall project schedule. This problem often results in delays of activities and in some cases the delay of the whole project. In the GADP context, time management was a serious problem and this became manifest in many areas.

Bguyonb and GADP (1993) assert there were considerable delays in the areas of staff training, delivery of materials and availability of funds. The overall delay of the GADP was 15 months. IFAD (1993) adds that the GADP was designed as a long-term project. However, satisfactory results were expected to appear within a short period. This contradictory situation was due mainly to the lack of objective targeted actions to be undertaken and the lack of clear definition of potential beneficiaries. This might be the reason why the project failed to make significant positive changes in the lives of women and small farmers. Bguyonb and GADP (1993) reveal that there was a delay of 23 months in executing activities of construction and rehabilitation of roads, because the project had a large number of participants, a lack of programming activities, and the administrative procedures of placing orders for materials moved ahead at a very slow pace. The lack of clarification regarding imports for which SPPW (Special Program of Public

Works) and the GADP shared responsibility, and the theft of large quantities of imports at Mombasa port in Kenya (1993), contributed to delays.

From this situation, it becomes clear that delays should be mainly attributed to the external environment and management. The GADP faced unforeseen events such as thefts. The GADP could have taken out insurance to cover the cost of theft. However, as stated before, risk assessment was not dealt with in the GADP planning. Without regular risk assessment, it was difficult for the GADP to cope with the uncertainty of the environment. The lack of clearly identified stakeholders, resources and real activities of the GADP, was a serious problem in the phase of implementation. That delays occurred regarding the imports of materials was not surprising, because roles and responsibilities of the GADP and its subcontractors had not been clearly defined and integrated in the project planning. The conclusion of procurement contracts was confusing and could have resulted in conflicts between the contracting parties. The professional credibility of subcontractors and the risk assessment of theft, road accidents, delay of delivery of goods on the part of the suppliers, and so forth, should have been considered in fair and thorough bidding procedures before concluding the contracts. The GADP's activities, which already were more than it could cope with, moreover had not been clearly defined and scheduled. As a result, delays in executing tasks, inefficient use of resources and conflicts were inevitable. One could have envisaged penalties as a way of dealing with delays, but this did not happen in the GADP. In many cases, it was simply stated that activities had been stopped or were delayed because of lack of resources.

### **7.3.2 Human resource management**

Human resource management relates to selecting the right people for the right place in an organization and ensuring development in their careers. Inadequate human resource management can lead to a work environment in which people get de-motivated with the result of low work productivity and the waste of resources. The leadership plays a great role in these matters. The GADP had a problem in managing its people. The project started with 311 employees at the beginning of 1990 and the number was reduced to 89 employees in 1993 (Table 7-1).

**Table 7-1: Personnel of the GADP on 1<sup>st</sup> January 1993**

Category	Departments					
	Training and Vulgarization	Management	Forestry promotion	Rural engineering	Follow-up and Evaluation	Total
Ao		1				1
A1		1			1	2
A2	4	10	2	2	3	21
A3		1				1
D5		5				3
Other	1	40		11	9	61
<b>Total</b>	<b>5</b>	<b>56</b>	<b>2</b>	<b>13</b>	<b>13</b>	<b>89</b>

Source: IFAD et al. (1993).

The table indicates that only one person (the managing director of the GADP) had a university degree (Ao), other employees had a high school diploma (A1, A2, A3, and D5), and others again had no such education. A1, A2, A3, and D5 represent categories of high school degrees, recognized in Rwanda in the time of the GADP.

In 1992, the GADP underwent a re-organization, due to the fact that the project was integrated in the national structures of MINAGRI within the policy Framework of food security. It meant that GADP had to make some adaptations. Unfortunately, the project manifested a lack of coordination between its services and a lack of coherence in the overall project. For example, after the reorganization, the responsibilities for popularization were given to employees of the MINAGRI agency working in the Gikongoro province, but the activity was still carried out by the GADP (Bguyonb and GADP, 1993).

This implies that the problems, experienced by the project from the outset, namely lack of clarity of work scope and resources allocation, continued unabatedly. In this regard, Bguyonb and GADP (1993) suggested an effective job description, the relocation of personnel, and the dismissal of some inefficient employees, as priorities in dealing with the inefficiency of the project. Although many factors contributed to inefficiency of the GADP, its organizational structure, characterized as it was by the duplication of work (Table 7-2), also played a big great role.

**Table 7-2: Personnel of MINAGRI and GADP in Gikongoro Province on 1<sup>st</sup> January 1993**

Department	Farming services in Gikongoro Province								
	Personnel of MINAGRI represented by RDAS and that of GADP		Technical assistance			Total	Gender		
	MINAGRI	GADP	Experts	Volunteer of United States	National expert		Male	Female	Total
Training and Popularization	87	5				92	68	24	92
Management	36	56			1	93	73	20	93
Forestry promotion	62	2		1		65	61	4	65
Rural engineering	10	13	1	3		27	25	2	27
Follow-up and Evaluation	13	13	1			27	21	6	27
<b>Total</b>	<b>208</b>	<b>89</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>304</b>	<b>248</b>	<b>56</b>	<b>304</b>

Source: IFAD et al. (1993).

As table 7-2 indicates, MINAGRI (represented by the RDAS) in Gikongoro and the GADP, carried out the same activities in the same geographic area (see also Figures 6-1 and 6-2) and were under the same and direct supervision of MINAGRI. The autonomy of the GADP in carrying out its activities was limited. The GADP had to collaborate closely with the RDAS. Conflicts of interests would make their appearance, seeing that each had to give an account of their activities to the government, through the MINAGRI. Therefore, there was confusion between the two organizations about their responsibilities which must have made coordination difficult to achieve. Activities should have been entrusted either to the RDAS or to the GADP, not to both organizations, especially because they were supposed to be different in respect of their activities. This situation resulted in the waste of resources and energy, and loss of synergy.

In addition, when looking at the qualifications of the GADP's personnel (Table 7-1), most staff members had only high school degrees (A1, A2, A3, and D5). So, the quality of decisions taken in the field of management and evaluation could be questioned. Out of 89 employees, 13 were working in the Department of Follow-up and Evaluation while 56 employees were working in the Department of Management, in which the important and strategic decisions were made regarding the implementation and the future of the project. Only one employee in the department had a university qualification (A0). What is surprising is that some of them did not even have any background in the economics or management fields. In terms of gender, out of the 304 employees working in the agricultural sector (GADP and RDAS), only 54 were females. These women represented 60% of small farmers, of whom 40% were heads of families. Therefore, it stands to reason that the women were not integrated because the rate of their representation in decision-making organs was at the lowest level.

The problem of duplication of tasks accomplished by the Head of RDAS and GADP was partially solved when the administrative reorganization was undertaken in 1992 with the nomination of two separate directors, one for the RDAS and the other for the GADP (Bguyonb and GADP, 1993). However, the direct intervention of the RDAS in the GADP management persisted because the GADP was still under the direct supervision of the RDAS and the two institutions continued to carry out the same activities in the same area. An example of this intervention is that “the head of the RDSA recommended that the managing director of the GADP concentrate all his efforts on the coherence of all actions of the project and assure the coordination and relationships with different stakeholders of the GADP” (Bguyonb and GADP, 1993).

This declaration indicates that the problem of tasks and power was not resolved. The director of the RDAS still felt that he had power and authority over the director of the GADP, while the responsibilities and activities of both organizations remained the same in the same region. This is in accordance with the organizational structure of the GADP where is indicated that the GADP was under the authority of the head of the RDAS. The problem of inefficiency in the use of resources in both organizations was not settled. The experience of the GADP indicates also that the inadequate organizational structure could be a real obstacle to the project leadership, which was found to be one of the crucial factors that influence the project management and that cause project failure or success.

### **7.3.3 Financial resources management**

The way a project makes profit and gets funding to cover its life cycle, determines the fundamental conditions of its financial success. This is why the project manager has to plan and control the cash flow of the project. The cash flow document helps him to deal with inflow and outflow of the project's money (Burke, 2001:176). In the cash flow document, one should be able to see the cash inflow (loans, donation, and incomes) and cash outflow (investment costs, overhead costs and repayment of loans). This document is very important as it shows the total costs and the total financial resources needed to cover the budget costs. Financial resource management is not concerned only with project costs.



An important document such as this was not found anywhere in the documents of the GADP. Because of the problem of archive management encountered in the project, the only data available related to this matter was the budget set to cover investment and overhead costs for the period of the years 1993, 1994 and 1995 as indicated in table 7-3.

**Table 7-3: General budget 1993-1995 (1 US \$ = 136 FRW)**

<b>1993</b>							
Costs	IFAD	PNUD	FENU	PAM	Beneficiaries	Rwandan Government	Total
Investment costs	186,659,000	81,015,000	85,945,000	103,979,000	0	8,974,000	466,572,000
Overhead costs	69,391,000	4,353,000	9,825,000	0	147,546,000	45,374,000	276,489,000
<b>Total</b>	<b>256,050,000</b>	<b>85,368,000</b>	<b>95,770,000</b>	<b>103,979,000</b>	<b>147,546,000</b>	<b>54,348,000</b>	<b>743,061,000</b>
<b>1994</b>							
Investments costs	128,839,000	11,282,000	73,779,000	108,447,000	0	6,141,000	328,488,000
Overhead costs	65,750,000	816,000	15,000,000	0	188,836,000	49,836,000	320,471,000
<b>Total</b>	<b>194,589,000</b>	<b>12,098,000</b>	<b>89,012,000</b>	<b>108,447,000</b>	<b>188,836,000</b>	<b>55,977,000</b>	<b>648,959,000</b>
<b>1995</b>							
Investment costs	93,237,000	0	73,779,000	0	0	2,751,000	169,767,000
Overhead costs	66,821,000	0	15,233,000	0	230,860,000	50,868,000	363,782,000
<b>Total</b>	<b>160,058,000</b>	<b>0</b>	<b>89,011,000</b>	<b>0</b>	<b>230,860,000</b>	<b>53,619,000</b>	<b>533,549,000</b>

Source: GADP et al. (1993).

From this table it appears that, during the implementation of the project (1993, 1994, 1995), the total investment costs were being reduced in the same way as the sponsorship from IFAD, PNUD, and FENU. But total overhead costs over the same period were increasing, while the contribution of beneficiaries was also increasing. This posed another big problem. Firstly, there were the increasing overhead costs that may be explained by the wastage of resources as described above, and by the increase of market prices. This resulted in budgetary over-runs according to Bguyonb and GADP (1993). Secondly, the beneficiaries became accustomed to receiving gifts, for example in terms of inputs such as fertilizers, seeds, and plants. When asked to contribute towards the costs of these items to relieve the strain on the budget, they abandoned the actions achieved by the project. The attitude of people towards making a financial contribution had been known from the beginning and the GADP and its sponsors should have paid particular attention to this point. Increasing overhead costs of the project was perceived as a great threat to the project success.

Stressing that the financial management of the GADP was not solid, one Governor of the Gikongoro province said in an interview: “the GADP performed very poorly because of a lack of sponsorship. This was due to the fact that the sponsors left Rwanda in the time of war and genocide. After that time, the project continued its activities but was not financially strong in comparison with the period prior to 1994. The project worked together more closely with non-government organizations than the Rwandan government because the country was in the phase of rehabilitation and reconstruction”. One agronomist said that the GADP has experienced noteworthy problems because of the lack of funding. Later after the war and genocide, when funding was available, it was used for many and different activities such as excavation activities (terraces), tree nursery for fruit and forestry trees, artificial insemination, training for employees and assistance for cooperatives to sustain themselves. He went on to say that he learned that the project had ceased while a great deal of funding remained unused because the administrative procedures were too long and the project duration was too short to accomplish all the activities. Another independent employee of the GADP confirmed this.

Moreover, IFAD (1993) states that the financial situation was very sensitive, specifically in the area of land development and maintenance of fixed assets. In fact, the implementation of the project in Gikongoro province was totally justified because of the shortage of land. It was the intention that 380 ha would be developed for pasture within 7 years. However, the project faced a serious problem regarding the wastage of inputs and the embezzlement of funds. Also the aspect of soil conservation was at great risk because farmers abandoned the developed land when the project decided to stop providing them with the fertilizers used to make land more productive. IFAD, one of the major sponsors of the GADP, was challenged for guaranteeing the funding needed to support the activities of technical assistance and training. The funding was believed to be indispensable until the end of the project.

According to Bguyonb and GADP (1993), PNUD had accepted to provide the funds for training and technical assistance. External consultation would have helped in obtaining more bank loans and enhancing research and development activities. These would have been directed towards combating poverty in the local community. The activity of maintenance of tangible fixed assets was entrusted to the agency of MINAGRI in Gikongoro and financed by the Rwandan government. The external sponsors withdrew their investment from the GADP one by one so that the project was no longer able to sustain itself.

Another problematic area, related to financial resource management was that of financial accounting. This is not surprising. In fact, as mentioned in previous paragraphs, the lack of human resources skilled in management was a problem which needed particular attention. This was because most employees in the department of Administration and Finance had low qualifications.

That is why, in order to enhance the performance in the department of Administration and Finance, the following solutions should have been implemented. The accounting system should have been fully computerized and the accounting staff trained. An audit should have been carried out to check on salary advances and loans accounts. The stores and purchasing management should have been improved. Severe punishment should have been meted out for embezzlement (Bguyonb and GADP, 1993).

The experience of the GADP in the financial sphere illustrates again that planning is at the heart of a project. As seen in Chapter Five, GADP objectives were not clearly defined. Its activities were not clearly identified and scheduled. The overall project schedule of 7 years was underestimated. In consequence, financial, material and human resources were underestimated. During the implementation phase, the project tried to achieve the activities within less than the scheduled time. It attempted to execute long-term activities in a short period. This could not work because of limited resources.

#### **7.3.4 Management of the GADP's inputs and infrastructures**

Some quantities of inputs were given free to farmers, but others were sold on credit. The problem was that people, who were used to getting inputs free, had difficulties to pay back what they owed to the project. Therefore, a great number of inputs were sold and not paid for (Bguyonb and GADP, 1993). Table 7-4 below illustrates the situation.

**Table 7-4: The situation of seeds and fertilizers sold to the cooperatives for the period 1990-1993 in 3 districts**

Name of District	Name of cooperatives	Quantities sold (kg)	Quantities not yet paid (kg)
Kinyamakara	Nderabana	5814	445
	Abaticumugambi	1200	805
	Abadateba	1260	1090
Nyamagabe	Abagwizamusaruro	7558	2176
	COPEKI	3750	1330
	Abaticumugambi ba Muvoma	2000	765
	CORWAKA	4846	0
Mudasomwa	Abagezasuka	4270	1451
	Twibumbebahinzi	11048	1206
	Jyambersuka	3350	535
	Twongeremusaruro	5120	301.5
	Abatangerugero	5200	1090.5
	Abemeranama	10300	1095
	Abakundisuka Chaux	250	16
	Koyabaki	4950	301
	Ishyaka	7770	1760.5
	Terimberemuhinzi	4315	1335
	Isuka	5180	432.5
	Interahamwe	5092	215
<b>Total</b>		<b>93273</b>	<b>16350</b>

Source: GADP (2001).

According to this table, up to 1993 a total of 16 350 kg (17.5%) had not yet been paid for. Even if payment had occurred, it is worthwhile to remember that there may have been a delay in transforming the receivable accounts into cash because of the problem of inflation. As a result, the cash flow and the project's short term payments were also affected. In such a situation GADP (2001) found that there was a possibility of missing out on opportunities such as getting government contracts, because of a lack of funds.

IFAD (1993) confirms that the project also experienced a problem with infrastructure management. In fact, the rate of completion of road construction was only 12 %, but even the roads which were available deteriorated because of a lack of maintenance after they had been made the responsibility of municipalities. The project built 26 storage buildings for cooperatives for farmers, expecting that the production of food and cash crops would increase. Unfortunately, this did not happen. Therefore, the project appeared to be oversized and recorded a significant loss of return on investment as it was not possible to find new users for the buildings. In this context, subsidies for wheat growing as a short-term transitional measure, were supposed to stop in 1994 because of the problem of using the storage buildings. As Bguyonb and GADP (1993) assert, the project zone had in total 53 units of stores, of which 27 were built by the preceding project PIA and 26 by the GADP. Each unit had one storeroom for potato seeds. A polyvalent

building with a capacity of 750 tons was available to hold agricultural crops and inputs. In constructing this building, the contribution of cooperatives consisted of the excavation work and of bringing local materials. But the units were not utilized efficiently, because most of them were not used as planned. The storage units had been well made, but training for their maintenance was required. The storage buildings were beyond the production capacity of small farmer cooperatives. It was astonishing to see two of these buildings as close as 100 m from one another. The costs of maintenance and protection also were very high.

As Bguyonb and GADP (1993) observe, the project intended to protect the land against erosion and to develop 378 ha of land that belonged to the districts. This would cost the project 162,000 FRW/ha. Another area of 530 ha was also earmarked for development, at a cost of 197,500 FRW/ha. The project was to distribute the developed land among the different cooperatives. Very soon, however, the beneficiaries abandoned the land, pretending that the care for it was the responsibility of the GADP. In 1992, the land development activity was replaced with terrace building activities on the hills, and 60 ha were developed, mainly in favour of people who were well off, at a cost of 330,000 FRW/ha. As the beneficiaries had not spent any of their own money as investment in this activity, they did not take care of the terraces. The activities were stopped in 1993.

In view of this situation, one may question the sustainability of the project which, besides developed land, terraces, and roads, had other infrastructure in the form of buildings which were not efficiently used. When asked about the GADP's management of its resources, that is, the management of personnel, money, materials, equipment, infrastructures, inputs, and storerooms, 7 farmers involved in the current research replied that the subcontractors of the GDAP were not well paid and sometimes the workers, hired by the subcontractors, were not paid. This caused delays in the execution of some activities, which were still being carried out right at the end of the project. On the part of the GADP, the project experienced problems with paying the employees allocated to activities in the forests. In addition, the war had caused a loss of staff, plunder of money, materials, equipment of any kind and the destruction of infrastructures (roads, forest, terraces, storerooms, etc). The storerooms, left after the genocide, are not used even today as Images 7-1 and 7-2 indicate. They are empty.

**Image 7-1: Store for crops and inputs**



**Image 7-2: Store for wheat at Tare**



The storerooms were constructed for the storage of wheat, potatoes, other crops, and inputs. They are now abandoned. One farmer said that some cooperatives took back the stores built by the GADP but with no capacity to use them. This was due to the fact that they were not able to multiply seeds because of a lack of sufficient land. Another problem is who is responsible for the buildings' upkeep, as the users don't have a sense of ownership of the infrastructures.

The information, obtained by the researcher through observations and interviews in the research field, indicates that the GADP had much infrastructure (Images 7-3 to 7-10). They included stores for inputs and crop harvests, roads, developed land (upland), developed marshes (low level land), forests, fishing ponds, terraces, buildings used for different purposes (offices, veterinary centers for domestic animals and others for rabbit rearing), developed fields for multiplying wheat seeds. Some of this infrastructure (stores) was inherited from previous projects. But huge investments that had been made in this infrastructure were not productive.

**Image 7-3: Forest planted by the GADP**



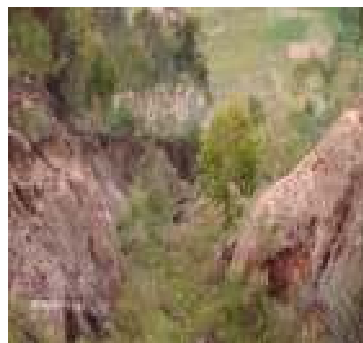
**Image 7-4: Deforestation**



**Image 7-5: Deforestation**



**Image 7-6: Deforestation**



**Image 7-7: Terraces**



**Image 7-8: Developed Valley at Mwogo**



**Image 7-9: The GADP roads**



**Image 7-10: The GADP office**



Some forests of the GADP still exist, such as the one planted in Kitabi (image 7-3) as a means of protecting the soil against erosion, but it has been affected by human interference through deforestation (image 7-4). After the departure of the GADP, the local people cut down the trees over a large area of forest to produce charcoal, which they used at home as a source of energy and sold on the market as a means of earning money. People attacked also the land itself and destroyed it. They first destroyed the forest and then dug away the soil (image 7-5) in search of sand used for making bricks and decorating houses. This action led to a serious increase of

erosion, as seen in image 7-6 and contributed, to a great extent, to soil degradation. This example shows the deforestation in the mountain Uwaruhago near the valley of Cyabarinda.

Chapter Six describes external factors (internal population displacement due to political unrest in the GADP zone) which brought about the deforestation. It is clear that this situation was beyond the control of the GADP. After the period of unrest however, continuing deforestation was related to inadequate project management because measures could have been taken to control the situation, either by the GADP or local government authorities. The phenomenon of deforestation resulted in soil degradation and changes in weather patterns. The consequences of these changes are the frequent droughts and severe famines in the region of Gikongoro and the increase of poverty. This is in contradiction to the objectives of an agricultural development project like the GADP, which set out to alleviate poverty in rural communities by improving the quality of life (health, shelter and education).

The GADP has developed many terraces such as those on Rukoko hill near Mata (image 7-7), to protect the soil against erosion. The terraces were used when the project was still operational. Since it closed down, they have been abandoned. The GADP developed marshland that included land in the valley of Mwogo which is used by some cooperatives of farmers for crops such as soya beans and corn. But the land is not used in an efficient and orderly way as there is no referential framework to follow (image 7-8). The GADP constructed the roads which are no longer practical (image 7-9). The marsh located between the Maraba and Nyamagabe districts was also developed for rabbit rearing and fishing. Individual farmers took back the marshland and are using it for the same purposes. But the exploitation of the land is not well planned or organized. The GADP has developed fields with terraces which were used specifically for multiplying seed potatoes when the GADP was still operational in Gikongoro province. They are now used by MINAGRI for rotation crops of wheat. The GADP has constructed buildings that include the project head offices (image 7-10), which today serve as offices for the National Police and Immigration Services in Gikongoro province. And of the livestock health centres built by the GADP, some are used as local government offices.

The GADP experience is a lesson for existing and new projects. It faced management difficulties in respect of time, human and financial resources. Lack of adequate planning appears to have been the main cause of these difficulties. The project had too many components (livestock, forestation, construction of roads and storerooms, development of land and terraces and micro-



enterprises), considering its limited 7 years life span and its total budget of only \$EU 35.6 million which, in addition, did never become available in full because of the withdrawal of some important sponsors. That is why, some years into the project implementation, the GADP abandoned some components such as distribution of inputs, plants production and development of terraces and upland. Others that involved bank loans, road construction and training were subcontracted while market and veterinary services were privatized.

### **7.3.5 Managing partnership relationships in the GADP**

#### **7.3.5.1 Stakeholder identification**

In identifying stakeholders involved with the GADP, the researcher used methods that included observation, documentation, consulting of websites, diagrams such as rich picture and multi-cause diagram, interviews with farmers, managers, staff, and other stakeholders involved with the project. The stakeholders were categorized as follows:

- Project staff: senior managers, middle managers, and first-line managers;
- Sub-contractors (professional groups) : IWACU, INADES, and Cooperative Banks (CBs), PAIB (Support Program to Basic Initiatives), SPPW (Special Program of Public Works), and MINITRAPE (Ministry of Public Works), PNUD / BIT (development of small enterprises);
- Trainees: GADP staff, provincial and municipal workers, MINAGRI and MIJEUMA's workers, agency's employees of different ministries working in Gikongoro, local trainers and forestry trainers, and heads of groupings;
- Trainers: GADP, IWACU, and INADES;
- Competitors: RDAS;
- Partners: NUR, ISAR, Volunteers of United States, and Technical Assistance Service;
- Sponsors: IFAD, PAM, FAO, UNDP (United for Development Program), and Rwandan government, PNUD, FENU, International Fund for Agricultural Development (FIDA) for roads construction, World Bank, and International Development Association (IDA);
- Ministry of Finance and Economic Planning (MINEFIN), CEPEX (an external contracting company in charge of the GADP evaluation) for evaluation;
- Other projects: Project for the Intensification of Agriculture (PIA);
- Authorities: national government, local authorities, and government agencies;
- Farmers: individual farmers, and small farmer groupings;

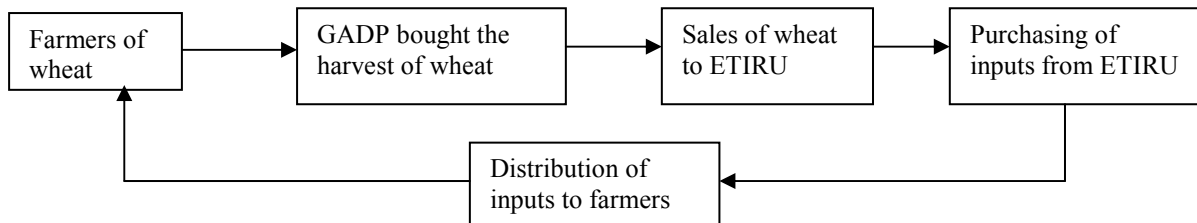
- Local and international business (suppliers and consumers): business of inputs (fertilizers), commercial crops (wheat, beans, potatoes), imports (some inputs like materials, and fertilizers), and exports (coffee, and tea), micro-enterprises, a wheat-grinding factory based in Ruhengeri (ETIRU), Catholic Organization for Poor Assistance (CARITAS), IWACU, and PAM;
- Public: local community, pressure groups concerned, for instance, with environment or waste management, political parties and the wider public.

During the interviews conducted with some ex-employees of the GADP, two managers testified that the project developed partnership relationships with key stakeholders who had different interests at stake in the GADP. Those stakeholders were:

- PNUD: This was one of the sponsors of the project before 1994 and provided the sponsorship for training and internship training at the international level.
- PAM: helped the project in mass activities such as reforestation, availability of plants of sweet potatoes, maintenance of forestry infrastructures, marsh development, and construction of roads. The organization paid the workers not in money but in what it called “food for work”. It also gave seeds to the farmers.
- FAO: one of the sponsors of the project who provided the sponsorship for training and internship training at the international level. It also intervened in activities of popularization. It provided experts in the area of farming to the project (agriculture and livestock).
- FIDA: One of the main sponsors of the project.
- FENU: In collaboration with its own experts, the organization as one of the main sponsors of the project, had the responsibility of developing marshland, buying machines for the construction of roads while PSTP/HIMO was in charge of the construction of roads and storerooms as well as their maintenance until 1994;
- IWACU: Having been established in the capital city of Kigali, the Centre had a temporary office at the head office of the GADP in Gikingoro province. The centre helped the GADP in the area of training farmers and also set up the rules and regulations for the cooperatives of farmers.
- CEPEX: Its role in the project encompassed the follow-up and project control;
- UBPR (Union of Cooperative Banks): The bank granted loans for inputs and put in place a guarantee fund in Cooperative Banks to help people to get bank loans easily.

- INADES: Acted as contractor or subcontractor and was in charge of training the farmers from different districts of Gikongoro and of farming instructors at local level near the target beneficiaries.
- NUR and ISAR: intervened in research activities and the technicians of the project applied the results of that research. At the district level, an employee of the project was in charge of research and development, with regard to different varieties of beans and potatoes. The results from research (tests) were made public. The next step was to develop and increase the seeds for the farmers. The NUR and ISAR also helped the project by providing fields for exhibits and demonstrations for farmers and the GADP's employees went to visit those fields especially at the FACAGRO (Faculty of Agriculture) at the National University of Rwanda to get more knowledge about farming. Using its laboratory equipment, the Faculty also assisted the GADP in the analysis of soil from Gikongoro province. In addition, ISAR organized workshops in which the GADP participated. To enhance the quality of its teaching, the National University of Rwanda sent students to the project for internship training. The project was also used as a case study for the dissertations of some students.
- AGECO: This contracting company assisted the project in upgrading the accounting system, including manual procedures;
- World Bank: The bank sent experts from Mauritius (in eastern Africa) to the project for auditing;
- SEGEAC (Consulting Company): Intervened in the GADP as a trainer in planning.
- AGROTECH: The intervention of this contracting company consisted in purchasing inputs for farmers;
- PSTP / HIMO (Labor-Intensive Public Works): A subcontracting organization for the construction of different infrastructures (roads, stores, etc);
- ARDI: Assisted the project in training technicians and farmers in beekeeping and provided beekeeping equipment (materials).
- ETIRU: A manufacturing company, transforming wheat into wheat flour. It helped the project in providing wheat seeds as the project was promoting the wheat in Gikongoro province (southern region of Rwanda). In this regard, one farmer said: "We had an agreement with ETIRU which consisted of selling the harvest of wheat produced in Gikongoro to ETIRU in Ruhengeri province (northern region of the country), and on its way back to Gikongoro the lorry brought the lime" (for fertilizing the soil). On the basis of information from the respondent, the situation is represented in Figure 7-2.

**Figure 7-2: Transactions between the GADP and ETIRU**



The same respondent went on to say that the GADP provided farmers with inputs, which the farmers had to pay back in instalments after each harvest and over a period of three to four years. In preparing the farmers for the period following the close out of the project, the GADP trained them how to handle the selling of their wheat harvest to ETIRU. At the end of the project, the percentage of loans paid back, was estimated at only 50%.

The GADP had many stakeholders with various interests, values, worldviews, cultures, perceptions, and interests. It was not surprising that conflict situations intervened in the process of decision-making. In this regard, Bguyonb and GADP (1993) attest to the fact that the GADP failed to develop the land at high altitude due to the methodology used. The project bore all the costs with little contribution from the beneficiaries. The situation was worsened by the fact that the beneficiaries had received no assurance that the developed land would be distributed in their favour and ultimately the project enriched friends of those in project management and people who were already well off. This impacted negatively on the image of the project as perceived by the local community and these activities stopped in 1993. Farmers who were meant to be beneficiaries did not only become victims, but also opponents of the project because of this favouritism. From the beginning, the identification of the stakeholders' needs was not addressed in the planning process. This was confirmed by Bguyonb and GADP (1993) in their statement that a specialist consultant was needed to review the identification of the real needs of the project beneficiaries, and that Rwandan people normally join cooperatives when they feel that their interests will be better considered and well integrated in those cooperatives. The GADP should have considered this attitude of Rwandans and identified local needs, jointly with farmers, before implementation. In that way, solid relationships could have been developed between the GADP and the farmers.

There was no GADP department in charge of subcontractors and contract management, and the lack of well designed contracts was a problem when it came to managing relationships among project stakeholders and to ensure a good quality product and service. Conflicts arose between the GADP, and farmers and subcontractors, but it was difficult to establish accountability and responsibility on the basis of available contracts. Had soundly constructed contracts been available, such conflicts might have been settled by stakeholders themselves, or through judicial procedures. Similarly, risk management issues could have been addressed for instance through penalties, or the retention of a percentage of payments due to subcontractors, so as to encourage them to respect the terms of their agreements with the project.

Social infrastructures such as hospitals, dispensaries and schools were seen as important because their presence would lead to the availability in the future of skilled and healthy people who are productive in the workplace and who can create income for themselves and participate in job-generating activities to alleviate the problem of poverty. All this would have been possible if the GADP had adopted a more inclusive policy with real consultation of stakeholders in order to create true partnerships. Unfortunately this had not happened. In addition, that the GADP, which had failed to carry out component parts of its activities because of lack of resources and poor coordination, would be able to cope with the new, heavy load of building health care centres and schools, could only be an unrealistic dream.

#### **7.3.5.2 GADP and the Rwandan government**

The data from the local and regional government representatives, employees of the GADP, farmers and other stakeholders involved in the current research affirm that the GADP was a government project with the mission of promoting regional development by reducing the problem of chronic famine and by alleviating poverty in Gikongoro province. This would be done by providing farmers with inputs for fertilizing the acidic soil and increasing the animal and vegetal production. The GADP was a very big project, in terms of budget and as well as geographical area, and its activities extended to all the districts of Gikongoro province.

Agronomist B and two managers of the GADP confirmed that the director of the RDSA was simultaneously director of the GADP, under the same supervision of MINAGRI (the project client). Therefore, all the agronomists and veterinarians working for the GADP were employees of MINAGRI. They were hired by MINAGRI and paid by MINIFOTRA (Ministry of Work). The GADP itself apparently hired a very small number of employees. The director of the GADP

received only an allowance while his salary was paid by MINIFOTRA. This is because he was a state employee and not hired by the project.

The government, represented by MINAGRI and authorities at all levels (regional and local levels), intervened in the GADP planning of its activities, and in setting its priorities. MINAGRI was the coordinator of all activities of the GADP. The government was also a useful channel for facilitating the communication between the project and the local population. In addition, the Rwandan government contributed to the financial resources of the project at the rate of 5%, as agreed between the government and other sponsors.

Concerning the problems linked to this partnership between the government and the GADP, 5 employees of the GADP and 2 government employees at the provincial level said that the organizational structure of the project was one of the problems that hindered the achievement of its objectives. Besides the duality of the responsibilities of the head, both with regard to the RDAS and the GADP, the project was not financially and administratively autonomous because it was under the guardianship of MINAGRI. This resulted in delays in the decision-making process and the execution of activities.

Furthermore, concerning the partnership with the government, the GADP had one agronomist and one veterinarian in each district. They were under the direct supervision and control of the heads of the districts they were operating in, but they were paid by the government. Therefore, if the GADP leadership wanted control over project activities, it needed the authorization of the leaders of districts.

Two government representatives at the provincial level affirmed that they were involved in the planning of project activities and, in some cases, in their execution. This was evident in the fact that the governor of the province signed GADP documents relating to the use of funds for field works, as he was president of the management committee of the GADP. In addition, the governor was expected to provide the transport for field visits because the GADP did not have enough vehicles.

However, the government representatives said that problems arose regarding these partnership relations. There was no transparency in the management of the GADP. In fact, the management was exclusively in the hand of the managers-leaders of the project. The local and regional government authorities were not informed about the management of resources such as money

materials, vehicles, motorcycles, fuel, computers, salaries and budget. Despite the local government's involvement in the planning of the project, the leaders held that participation was of little consequence and the project carried out all the planning activities regardless of the needs of the target beneficiaries. This was, however, also due to the lack of mobilization of the local people for the sake of the project, and to the fact that the needs of beneficiaries changed after the genocide when the project dedicated resources and time to activities of self-rehabilitation and reconstruction.

The GADP management was in the hands of top managers of the project only, and the communication of information was poor because it had not been planned for. If communication had been properly planned, GADP managers could have been held accountable for their actions by stakeholders, especially local and provincial authorities and farmers. That government representatives did not know what the project was doing is difficult to reconcile with the fact that it had been tasked with alleviating the problems of poverty in the region of Gikongoro. If the government was left in ignorance, how could other stakeholders bring clarity and transparency about in a confusing, conflicting situation in which no one was accountable? It was inevitable that poor contracts and job descriptions, the lack of involvement of all stakeholders, the lack of transparency, communication and accountability should result in the inefficient use of resources.

#### **7.3.5.3 GADP and farmers**

As mentioned in earlier chapters, the target beneficiaries of the GADP were mostly farmers divided into two groups: individual farmers and cooperatives. They played different roles during the implementation of the project. Cooperatives multiplied and planted selected seeds. They carried out various agribusiness activities which were connected with producing, preparing and selling farm products, including inputs (seeds and fertilizers), crops (wheat, potatoes and beans) and agricultural equipment. They were involved in forestry activities and land development. Individual farmers prepared their own demonstration fields for the benefit of other farmers, sensitized other farmers about the use of fertilizers and about soil conservation, and combined the activities of agriculture with livestock rearing. They participated in the construction of storerooms for inputs and market crops.

In the process of field research, the researcher wanted to know more about the partnership between farmers and the GADP throughout its life cycle. The answers are synthesized in the following points. According to 12 farmers, contracts signed between farmers and the GADP

were concerned specifically with the following aspects during the project's existence. Farmers sold inputs for the GADP (seeds and fertilizers). They were to increase and sell their crops to the GADP and were responsible for livestock production. They had to increase selected seeds and use the land developed by the GDAP. The GADP developed upland and valley land and built storerooms for the inputs and the harvest of farmers, grouped in cooperatives, and farmers could make efficient use of these. The GADP intended to reduce poverty and famine, provide credits for buying inputs and assist cooperatives when and where needed.

The GADP helped farmers in different ways according to 11 farmers. The project provided farmers with seeds (wheat, potatoes, etc) or money for buying seeds and when the harvest was available, the GADP collected and bought it for sale to the company ETIRU. It organized travelling for farmers to make their products known in other regions of the country. It built storerooms used to store the harvest and protect it from theft and damage while waiting to be sold. The project provided vehicles for transporting the products for sale, trained farmers about running businesses and accessed the market for the products of cooperatives of farmers.

In the context of achieving its objectives, the GADP built and developed partnership relations with many stakeholders namely training centres like IWACU and INADES, the Rwandan government represented by MINAGRI, other government services operating in Gikongoro province like RDAS, sponsors, and other projects based in the same region. The purpose of those relationships was to achieve its objectives. In this regard, the respondents stated that an important role was played by MINAGRI in meeting the needs of the GADP, namely supporting the activities of farming, promoting and developing cooperatives of farmers. This was intended to increase incomes and create new jobs.

In executing the agreements, the respondents presented different points of view. Nine farmers affirmed that they did not have any problems. But the other nine farmers declared that they faced problems in the following areas. There were environmental changes such as bad weather, war, bad harvests due to droughts and rains, robbery of goods and materials and plundering during the war and genocide. There was a small quantity of inputs sold and a small quantity of livestock, which resulted in a small quantity of fertilizers (manure). The purchasing power of farmers was not enough to afford the inputs as they were very expensive. There was a lack of financing for the initial investment and an inability to protect the farmland against erosion. The key stakeholders involved with the GADP did not keep their promises, some beneficiaries of credit



did not pay their loans back and conflicts arose among stakeholders. The war destroyed resources including personnel, all infrastructures, and other achievements realized by the project. The project zone was too wide to meet its objectives in a short time.

In addition, the achievements in research-development were not remarkable because of department of Research and Development was involved in too many tasks. In consequence, the fertilizers (inputs) were sold in specific places by cooperatives but in small quantities which were not available in time. In terms of seeds needed for increasing agricultural production, the GADP bought and sold seeds to the farmers but the seeds were insufficient to cover all production needs. As far as livestock was concerned, the treatments for animal health and the sale of medicines were dealt with specifically through the veterinary network. Concerning reforestation, the GADP tried in 1992 to privatize the production of plants but this was suspended in 1993 (Bguyonb and GADP, 1993).

Fourteen farmers added that they did not have the opportunity to share inputs such as seeds and developed land. The reasons they gave were that restrictions had been imposed by the GADP such as:

- Working within cooperatives of farmers and having livestock (cows) and stores for inputs;
- Being obliged to be a member of a legally recognized cooperative, that is, having statutory documents (rules and regulations);
- Being able to fertilize and protect the land against erosion by means of preparing terraces and planting anti-erosive trees (fruit trees and forest trees) and grass, which did not make the soil sterile;
- Growing crops with the use of inputs (more manure than industrial fertilizers like lime) and selected seeds for more productivity and increase of harvest;
- Being able to use crop rotation, an important method to maintain the fertility of farmland;

Bguyonb and GADP (1993) add that the inputs were profitable and that the profitability of the sale of inputs was accompanied by the selling food crops. The Centre IWACU was in charge of identifying the needs of storage units, reinforcing the market services of selling food crops and marketing, as well as privatization and commercialization of inputs. In collaboration with CARITAS, PAM, and ETIRU, the centre IWACU supported cooperatives in commercializing the crops of wheat.

These relations between the GADP and the farmers and subcontractors indicate that the project was not able to meet the market needs (of upstream and downstream markets) in inputs and crops because the activities of the GADP were too many. That is why, not being able to accomplish its duties, the GADP tried to privatize market services and engaged many stakeholders in the same activity. The fact that the GADP was engaged with many stakeholders but concluded poor contracts, in which roles and responsibilities were unclearly defined, made it difficult to coordinate activities outsourced to subcontractors. This situation was the cause of the poor performance by subcontractors and the delays in delivering materials and executing tasks.

That is also why, for instance, the project was incapable of covering seed needs. Therefore, according to Bgyond and GADP (1993), it was recommended that measures should be taken to improve the situation. The Centre IWACU and CBs had to cooperate closely so as to allow cooperatives to increase seed production. The sale of inputs was to be enhanced through marketing and packaging, and later the sale would be transferred to the cooperatives. The commercialization of wheat would no longer be subsidized by the project; the sale would be taken over by the cooperatives. The possibility of the extension of land for coffee plantations would involve reorganizing the producers of coffee and restructuring the competitiveness of coffee by making market prices more competitive. In this regard, the contract between the GADP and IWACU had to be revised. In addition, the process of privatizing veterinary services, as was done for other MINAGRI's services in other provinces of the country, would start in 1995. The contract for this purpose would be concluded between the GADP and cooperatives and local volunteers (farmers). The same reform would be achieved in the forestry area.

The strategy of privatizing market services was not in itself negative, because privatization normally provides benefits which include securing the best price possible for selling, the deepening and broadening of capital markets, and getting effective corporate governance. The privatization allows accessing capital, know-how, and markets that permit growth. Through privatization, competitive and effective businesses are developed. Privatization guarantees the best selling price possible (Hough et al., 2003:166).

The GADP implementation was difficult, mainly as a result of a poor feasibility study and planning. In earlier sections, it has been indicated that the GADP halted some of its activities such as upland development and distribution of free inputs because it was unable to handle them. The number of personnel was considerably reduced. Now, the process of privatization of

veterinary services was pursued. These decisions were made only 3 years after the project has been implemented. Although the privatization strategy was not bad in itself, it would not necessarily produce the positive effects as expected. The implementation of the strategy would not be easy because external factors of the global economy such market prices, demand and supply and exchange rates were determined by market forces and the Rwandan business environment was not in a favourable position to benefit from global economic advantages. The GADP would probably reduce its financial burden but, from the farmers' point of view, there was no guarantee that the market prices would be as competitive as expected. The farmers had already complained that the prices proposed by the GADP were not affordable after the free inputs had been stopped. They could have negotiated with the GADP about input prices, but they never tried that option. The main problem was that the farmers' involvement in and commitment to the GADP had been at a low level from the very beginning. This problem should have been solved before new alternatives were even considered.

As far as livestock is concerned, 13 farmers indicated that the project experienced problems in the following areas. The project failed to provide enough livestock for those who needed the animals, especially cows which provide much manure. "If the project had provided enough livestock in Gikongoro, all the people would now be rich", one farmer said. But, in respect of livestock too, the project was not realistic. It did not keep promises made and take the needs and abilities of beneficiaries into consideration. "As an example, those who had experience in rearing cows were given pigs and vice versa", another farmer added. There was also a problem of repayment of loans on the part of some beneficiaries.

On the basis of opinions of respondents and data from GADP documents, it can be argued that the problem of the GADP implementation was linked to many issues. Delays in delivery of inputs (seeds and fertilizers) have been mentioned and the lack of domestic animals as a source of manure, which was necessary to make the soil fertile. It has been stated that farmers had difficulties in finding markets for their production. In other cases the harvest was found to be too small to cover market needs because of delays in the delivery of inputs and those delays in turn created further delays so that land was not cultivated in the right season. The consequence was small harvests although other factors such as bad weather and bad seeds influenced the level of production as well. The lack of respect for contractual stipulations was a serious problem in the mobilization of resources (inputs) and adversely affected the crop harvest.

But the farmers, on the other hand, also created problems. Some of them did not pay back loans as agreed with banks. This problem created distrust between banks and farmers and this could be why banks were reluctant to grant bank loans to farmers. Loans were intended for buying inputs and making the land productive and increase its production. A general and underlying reason for the small harvests was the lack of financial resources.

The GADP imposed a number of restrictions on farmers, especially those belonging to a legally regulated cooperative. This measure was meant to be beneficial both for the GADP and for farmers. The legal regulation of cooperatives would facilitate the GADP's attempts to obtain financial and technical assistance for the farmers from the Rwandan government through MINAGRI and other government agencies as well as non-governmental organizations. Through the offering of training opportunities, this support could help to enhance the farmers' knowledge and skills in managing their farms, cooperatives and businesses. On the other hand, it would be easy for the GADP to recover loans lent to the farmers and protect them against any abuse of their economic rights.

As the relations between the GADP and the farmers, as with other stakeholders, were poor from the beginning, the farmers were not open to a correct understanding of such measures. Instead of interpreting them as an opportunity they regarded them as a threat and showed no interest. Besides financial constraints, due to carrying out an amount of activities that was beyond its capacity with little support from sponsors, the GADP, faced with the negative attitude of farmers, abandoned some of its project's components. The farmers' disinterest in the project may also have played a significant role in the decrease of harvests, although the influence of external factors (bad weather and political unrest) was considerable. Again though, the GADP had obviously missed out on the opportunity to be a real partner in learning processes during its life cycle.

#### **7.3.5.4 GADP and banks**

Agricultural modernization needed large investments in rural areas to increase the crop production. However, farmers had difficulty in accessing bank loans. This is because, in relation to the modest amounts granted, loans were expensive because of application fees and screening procedures before the loans were granted.

It was in those circumstances that the project PIA (Project for Agricultural Intensification) signed a credit agreement with the Union of Cooperative Banks in Rwanda for the development of Gikongoro Province. When the GADP took over the PIA's activities, and in collaboration with the local people, it investigated how a Cooperative Banks system with small amounts of credit at the lowest interest rates could be developed in Gikongoro. In this context, an agreement was signed between the GADP, Union of Cooperative Banks in Rwanda and MINAGRI. MINAGRI also requested that a bank agency should be opened in Gikongoro.

According to the terms of reference of this agreement (GADP, 2001):

- MINAGRI was to provide the financing for building an office of the local Cooperative Bank in Gikongoro. MINAGRI also had to pay the overhead costs and salaries for the staff of Cooperative Banks operating in Gikongoro, and 50% of the overhead costs of the agency office of Cooperative Banks for a period of 7 years. In the execution of that contract, MINAGRI had to provide a fund of US\$ 454,000.
- The Union of Cooperative Banks in Rwanda should develop a network of Cooperative Banks in Gikongoro in order to ensure that everyone had access to a bank loan. It was also asked to deal with all activities such as the recruitment and training of the personnel of the its agency and new Cooperative Banks working in the area covered by the project. The beneficiaries would be those who would contribute, in one way or another, to increasing the production in Gikongoro. Those beneficiaries would be small and big business organizations, cooperatives of any kind, and individual farmers.

The role of credit was to help individual farmers and cooperatives to buy inputs for the intensification of the farm crops. The subcontractor was Cooperative Banks (CBs). In Gongoro, 6 CBs were available (Mudasomwa, Mubuga, Nyamagabe, Musange, Kaduha and Kinyamakara). In 1993, the total amount of credit was 12,200,000 FRW (that is almost US\$ 23,922) for 90 cooperatives and individual farmers (Bguyonb and GADP, 1993).

When asked whether the loans and gifts had impacts on their lives, the respondents reacted differently. For 10 farmers, the impact had been positive in the following aspects of their lives. Markets for inputs and crops were near buyers and sellers. Prices were cheaper than those of other business companies, that is, other than cooperatives working closely with GADP. Fair scales were used in trading transactions in comparison with other business companies. Incomes from livestock and crops increased for local people. Natural fertilizers from manure were

increased and industrial fertilizers were used. Food security in terms of increase of food crop, milk for their families was guaranteed and poverty was reduced. Office rooms, storerooms for seeds and crops of wheat, beans, and potatoes were available. Knowledge, experience and skills in management increased. Good relationships between members of cooperatives were built. Soil fertility improved because of soil acidity reduction, and therefore high productivity levels of land were achieved. Farmers acquired and increased livestock.

For 6 farmers, the impact had been negative because of bad weather, high interest rates and the genocide, which destroyed all that they had achieved. But Bguyonb and GADP (1993) affirm that the full potential of the activities concerning loans was not developed because of the many liabilities inherited from the previous project PIA. 165 Loans were granted in 3 years but the rate of repayment in 1991 was only 20%-51%, collected by local trainers who did not consider this as part of their job which did nothing to enhance the situation. The cause of that problem was again the lack of effective relationships between the GADP and Cooperative Banks. This resulted in the delay in building the office for Cooperative Bank as planned in the agreement signed between MINAGRI, Union of Cooperative Banks and GADP. It had also an impact on farming activities.

In addition, from the perspective of 12 farmers, getting a loan from the GADP and/or banks meant that the beneficiaries had to fulfil the following requirements. They should have sufficient property as a guarantee involving house, forest, farmland and plantation of coffee trees; follow the instructions of the project; and be members of a legally recognized cooperative, that is, having statutory documents such as rules and regulations. They should have a bank account with regular bank deposits and statutory documents that included rules and regulations if it was a cooperative. They were asked to be a member of a bank and take a required number of shares in the bank. They should be able to use the loan effectively and efficiently and pay it back. They were asked to be honest, and they should live in the project zone and have a guarantor.

Six farmers said that it was difficult to get bank loans from the Cooperative Banks because they were asked to get the authorization from the Union of Cooperative Banks when the loan was for an amount of more than 100,000 Frw (Rwandan currency). This bank is a group encompassing all cooperative banks and the head office is located in Kigali (capital city). They added that they did not have any knowledge about and skills in the management of small income-generating projects because in the time of the GADP, the sector of small and medium enterprises was not as

developed and strong as it was during the time of interviews. That is why people did not understand the importance of small loans. The loans were not given in money but instead the GADP provided fertilizers and selected seeds. The repayment was also not in money but in potatoes and wheat which were, in turn, given to other farmers for the next agricultural season. Concerning livestock, the credit involved rotation. This means that a beneficiary could get cattle of any kind. When the animal gave birth, its offspring s was given to another farmer, and so on.

Regarding the use of credit, the same farmers said that they got credit from the GADP and invested the money in the activities for which it was granted, that is in agriculture, livestock and business. They proceeded buying and selling farm harvests (small business activities) and buying inputs (fertilizers like lime and insecticide NPK 17-17-17 or dithane, selected seeds of sorghum, beans, vegetables, potatoes, etc), livestock (which provides much manure), and agricultural equipment.

As far as the repayment is concerned, 6 farmers affirmed that they never had any problem. They prepared and developed seeds and when these germinated, they sold them and paid back the loan and interests very easily. Farmers whose main activity consisted of selling crops, also managed to pay off their loans immediately, in order to get a new loan. But 10 farmers declared that they had bad experiences with the repayment of loans. This was due to the:

- High interest rates on loans (5% per month, equivalent in the local currency to 4,400 FRW).
- Failure of business. In this respect one of them said: “I closed the doors of my business and had difficulties in the repayment.”
- War and the genocide, and bad weather (climate changes like drought and heavy rains) which destroyed crops.
- Robbery. As an example, two farmers said that on one occasion, robbers broke in and stole a scale, goods, etc, but still they had to repay the money invested in their acquisitions.

Concerning the matter whether inputs, seeds, and agricultural equipment were given on loan or as a gift, the beneficiaries had different views. The situation was confusing. It seemed that there was no transparency in the management of the GADP. In fact, for 13 farmers, it had been a loan that had to be paid back while for 5 farmers it was a gift in the form of:

- Business equipment such as tables, counters, scales, shelves, storerooms, business shops;
- Inputs like lime for terraces, insecticide NPK, training and development of valley land.

The situation of partnership in the GADP was confusing. The Ministry of Agriculture (MINAGRI) had promised to build the office of one Cooperative Bank and it was stated that there were delays in constructing the building because of bad relationships between the GADP and Cooperative Banks. The question that comes to mind is to what degree MINAGRI would have interfered with this issue, because not only was it a contracting party in the financial agreement but, as government representative, it also was the direct supervisor and one of the main implementers of the project. Cunningham and Meyer-Stamer (2005) are correct when they state that inefficient governments constitute major obstacles to the development and success of business. They do not allow for the clear procedures and the sufficient financial and human resources that are required for the process of learning and the collective participation of all stakeholders that need to continue throughout the life cycle of local economic development projects if these are to succeed. Cunningham and Meyer-Stamer (2005) and Donor Guidelines (2001) add that they do not provide business organizations with helpful services that they really need.

The GADP has recorded some achievements in relation to the creation of input markets near the farmers and that helped them to improve their living conditions through increasing harvests, income, and food security, knowledge of business and cooperative management. But the majority the people living in the region of Gikongoro had not benefited because, after the GADP's termination, the Ministry of Finance and Economic Planning (2002) classified the province among the poorest regions of Rwanda.

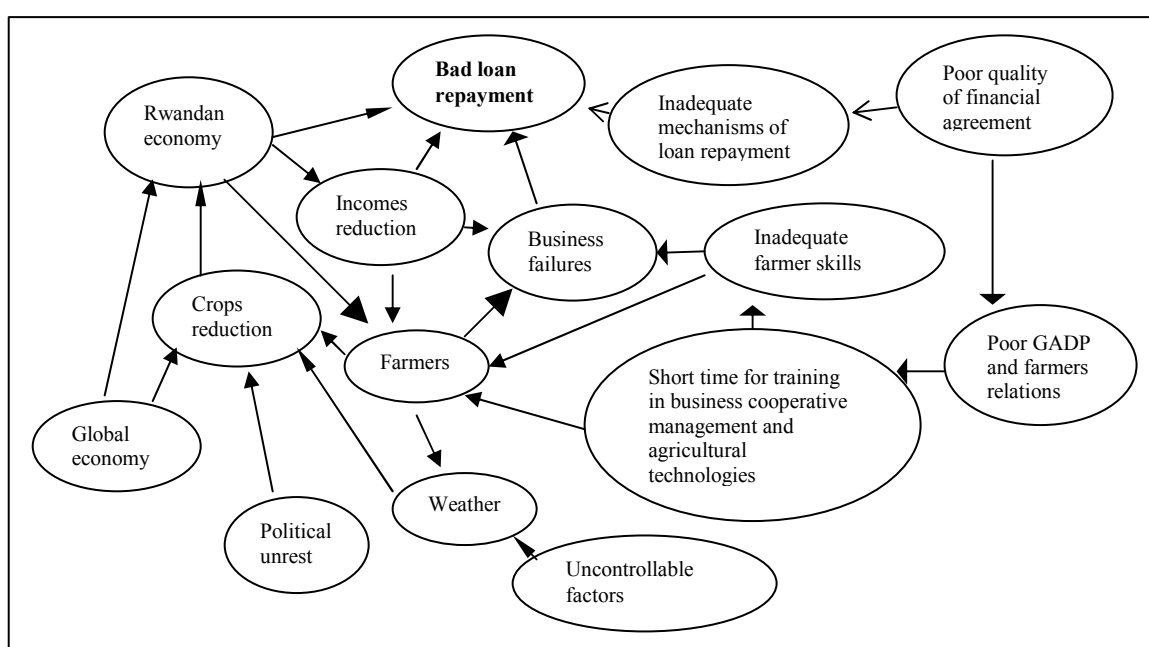
Farmers got more know-how of managing businesses and cooperatives, but that did not keep some of them from failing because as the GADP (2001) indicates, the training of farmers had been too short to cover all they needed as regards new agricultural technologies and management skills. Furthermore, the GADP existed at a time when the economic conditions were not good because of increasing inflation. This phenomenon can be explained by the political unrest between 1990 and 1994 but continuing until 1997 because even after the genocide, Rwanda was the target of regular attacks by invaders from the Democratic Republic of Congo. As a result, the Rwandan economy suffered because the agricultural production was not satisfactory. Although Rwandan commerce and the balance of payments were on the whole unfavourable because of the effects of globalization (World Bank, 2008), the political crisis exacerbated the inflation, which in turn led to higher interest rates on bank loans and to reduced bank loans being granted to businesses and small farmers. These circumstances explain the failure of some Rwandan



businesses but they could also have contributed to increasing bad debt from loans that farmers had received through the GADP.

The mechanisms of the loan repayment that were put in place and followed by the PIA and the GADP were also not clearly defined and applied. People in charge of collecting repayments were not qualified to do such a job. One gets the impression that this financial agreement too was not carefully prepared which may have contributed to the low repayment rate. The overall situation that led to the farmers' bad debt has been summarized and depicted in Figure 7-3.

**Figure 7-3: Causes of bad loan repayment**



The terms of the agreement seemed to be unhelpful. The support of MINAGRI in the construction of the bank's office could have been justified from the viewpoint of a government that wishes to promote the agricultural and business sectors in a region that had for a long time been characterized by chronic poverty. But it is more difficult to understand why MINAGRI would pay for overhead expenses and salaries for the employees of a private enterprise, for a period of 7 years (the initial project duration). This would not encourage the bank to be productive and competitive in the banking sector and to provide the best possible services to the farmers.

Some farmers received support in the form of a loan that had to be repaid, for others support came as a gift. The GADP was not fair in dealing with farmers. This is in accordance with IFAD's (1993) statement that the GADP created an environment of favouritism among farmers because the project distributed newly developed land to people who were already wealthy. Such a situation could be a serious problem in managing partnership relations as one would expect it to be a source of distrust and conflict among the farmers themselves and of the farmers with regard to the GADP. Farmers should have been treated equally. Again, an assessment of the productivity of the provided support would not be easy, because the terms of comparison are totally different (loans and gifts). In previous sections, it has been mentioned that people who were used to getting gifts abandoned the project and their activities in it, as soon as the project's support stopped. It is difficult to imagine that those same people would use resources efficiently because they had come to realise that the project was their property.

As project implementation requires agreements between different contracting parties, these agreements (contracts) should be a result of careful thinking, which takes into consideration positive and negative environmental aspects. In the case of the GADP one negative aspect was the fact that risks associated with the project were overlooked in all the phases of the GADP life-cycle.

#### **7.3.5.5 GADP and training centres**

Training is an important part of a project in its implementation phase. Training was divided into three programs shared between the GADP, IWACU Centre and INADES as indicated in Table 7-5 presented below. The emphasis was placed on the subcontracting of these activities. Two organizations, IWACU and INADES, had been selected to train cooperatives on the purchase and sale of crops like wheat and on how to increase potato harvests (Bgyond and GADP, 1993). The activities of training the trainers of the Ministry of Sport (MIJEUMA) and of 35 cooperatives (owners of storage units) were subcontracted to IWACU Centre. The training would focus on management skills. The training of MIJEUMA's workers was embedded in the context of promoting rural development. INADES was mandated to train local trainers and social workers allocated to the activities of marshland development. INADES also had to conduct socio-economic studies in that area and in neighbouring villages. The GADP intended to provide a great deal of technical training for local trainers, technicians and managers as part of the popularization program in the context of the development of high altitude land and low-lying valleyland (Bguyonb and GADP, 1993).

**Table 7-5: Training programmes in 1990**

Public	Type of training	Themes	Project GADP			IWACU			INADES			Overall program.		
			Object.	Ach.	%	Obj.	Ach.	%	Obj.	Ach.	%	Obj.	Ach.	%
		<b>Year 1990</b>												
Provincial coordinating managers	Meetings, sessions, workshops	Intensive campaigns and vulgarization												
		Research and development, planning of work												
		Stores management, wheat campaigns												
		Information technology and communication												
		Library computerization												
		National harmonization of training program.												
		<b>Subtotal</b>	205	344	167	100	0	0				305	344	113
Managers of operational units	Meetings, sessions, workshops, Practical training in foreign countries	Planning of work, wheat campaigns,												
		Stores management, marsh development												
		Planning, management												
		<b>Subtotal</b>	210	155	73	40	0	0				250	155	62
Governor assistants and districts Heads	Meetings	Wheat campaigns, planning of work												
		Intervention methods												
		<b>Subtotal</b>	50	27	54	10	0	0				60	27	45
Managers of local authorities, workers of MINAGRI at district level	Meetings, sessions	Wheat campaigns, stores management												
		Planning, planning of work, fishing,												
		<b>Subtotal</b>	572	451	79	104	0	0				676	451	67
Managers of others ministries working at district level	Meetings, sessions	Research program CERAI, planning, organization and accounting of cooperatives												
		Research and development												
		<b>Subtotal</b>	150	217	145	40	0	0				190	217	114
Local trainers Forestry trainers Surveyors	Sessions, study tours	Communication, data analysis,												
		Survey methods and techniques												
		<b>Subtotal</b>	170	348	205	550	0	0	550	399	72	1270	747	59
Heads of cooperatives	Meetings, sessions, study tours	Seeds multiplication, accounting and Mgt												
		Meetings, organization, selling of products												
		Mechanism of cooperation with IWACU												
		<b>Subtotal</b>		106		2820	1024					2820	1130	40
Total		<b>TOTAL</b>	<b>1357</b>	<b>1648</b>	<b>121</b>	<b>3664</b>	<b>1024</b>	<b>28</b>	<b>550</b>	<b>399</b>	<b>73</b>	<b>5571</b>	<b>3071</b>	<b>55</b>

Source: GADP (2001).

The training programme involved the GADP and two training centres, which were IWACU and INADES. The services of training provided by the three organizations would be beneficial to various stakeholders. The beneficiaries of the GADP program were managers and employees of provincial farming services. The training program was concerned with visits to the project sites, trips to foreign countries, and local sessions of 3 to 5 days. The Division of Research Development and the managing director of the GADP selected the training themes, on the basis of problems and priorities (Bguyonb and GADP, 1993).

The beneficiaries of the IWACU programme for rural restructuring were administrators of cooperatives of farmers, managers, and accounting controllers. In consultation between IWACU and GADP the training was geared towards the following priorities:

- Cooperatives which multiplied seeds;
- Cooperatives whose tasks were fund management (credits and crops insurance);
- Cooperatives that benefited from developed land (project zones);
- Managers whose responsibility it was to train cooperatives of farmers (Bguyonb and GADP, 1993).

According to Bguyonb and GADP (1993), the beneficiaries of the INADES programme were essentially forestry trainers. The main concerns, or domains of intervention, of the project for the period of 1990-1993 were centred on the following:

- Documenting the cooperative movement. In this regard, 469 cooperatives were identified according to the records from the different districts.
- Supporting the cooperatives of farmers in accounting (record keeping), stores management, preparation of bankable documents for bank loans, emergence of new organizational structures, and counselling about conflict management and embezzlement.

From Table 7-5, the rates of achievement of goals ranged from 121% for the GADP to 28% for IWACU and to 73% for INADES. The achievement of the overall programme was only 55%. This could be the reason why the GADP cancelled the training contracts with subcontractors IWACU and INADES after 1994. In addition, some themes scheduled, such as training for farmers on animal traction and voyages, did not take place because of lack of money (GADP, 2001).

Regarding farming popularization, 700 cooperatives made up of more than 8 000 people from 250 000 inhabitants of 50 000 households were to be formed. But the low rate of participation of women and young people was notable. In fact, only 15% to 25% of women and young people were represented (Bguyonb and GADP, 1993). IWACU and INADES failed to accomplish their mission and include all people who needed help. The complexity of the project, the problem of information and communication and coordination of different activities, would have been the main causes of their failure.

According to 18 farmers, the training that they received mostly dealt with:

- Management of credit funds, modern farming and livestock;
- Design, leadership and management of cooperatives;
- Resource management, design and development of small projects to generate income;
- Soil protection and conservation;
- Gender equality;
- Stores management and sale of inputs;
- Study tours for increasing knowledge and skills about the use of modern agricultural techniques.

These farmers agreed that getting access to training required that the following conditions were fulfilled:

- Being a member of cooperatives (farming, livestock) which worked closely with the GADP and were legally recognised;
- Having completed at least four years of primary school (knowledge of and ability to read and write) and living in the project zone;
- Being an employee of the GADP or an exemplary farmer, selected by agronomists operating at the district level;
- Having worked with the GADP for at least 6 months;
- Being a good advisor (wise) and interested in development activities.

When asked about the problems faced during the period of training and the implementation of new knowledge, the respondents expressed different opinions. Seven farmers said that they did not have any problem. But 11 farmers affirmed that they had some problems, which could be classified in the following categories:

- **During the period of training:**
  - Lack of material during the period of training;
  - There were not enough trainers for all those who needed training;
  - The period of training was too short to meet the needs of everyone or to get all the knowledge required for designing and implementing a cooperative or a project.
- **After training (period of implementing new skills and knowledge):**
  - Bad weather and war hindered the process of implementing new skills and knowledge from training;
  - Working with members who had different levels of knowledge;
  - Lack of financing (bank loans, sponsorship of any kind) for running a cooperative or any project which generates income;
  - The GADP closed its doors and there was no other project to replace it. The beneficiaries were left as orphans, and the new knowledge that they had acquired became useless. The poverty increased because of a lack of financial assistance and the war of 1994 that had destroyed all the achievements that had been realized until then.

Six farmers who took part in this training confirmed that the GADP did much with regard to developing valley land, providing fertilizers and selected seeds and so on. As an example, the cooperative UNICOOPAGI is one of the positive results of the GADP because the cooperative has existed since 1991, joining together 6 small cooperatives of farmers from Gikongoro province. The only difference between UNICOOPAGI and the GADP is that the GADP collaborated with people more than with cooperatives, while UNICOOPAGI works only with cooperatives. In addition, there were some very well-tended fields which were used for demonstrations. They were prepared for the visits of farmers and used as reference to show farmers how to judge whether the soil is well prepared with fertilizers and will produce a good harvest. However some aspects of training were experienced negatively. It was not unusual, for instance, if training that was scheduled for two weeks took only 3 days. This resulted in a poor understanding of the lessons, because too much instruction was squeezed into too short a time. After the period of training, trainees were faced with the constant problem of not getting seeds in the right time. This was a serious problem. In some cases, the seeds were not of good quality. As a result, farmers did not have good harvests and many lost a lot of money.

Regarding the fact that the GADP trained employees of other organizations, such as employees of Gikongoro province and those of the RDAS, 13 farmers said that maybe this would have been a good opportunity for the project to increase the knowledge and skills of local government people in order to prepare them for the good management of their own activities after the project had closed its doors. Another reason given was that the training would have forged and reinforced partnership relations between the GADP and local and provincial government authorities.

It was sensible that the GADP thought of training farmers in new technologies that could help them to increase their harvests and to manage their businesses and cooperative organizations. However, it appeared that the training content and the relevant financial agreements had not been well planned. It is unclear why the GADP lacked training funds while it was supposed to have benefitted from many large funds provided by prominent international organizations like PNUD, IFAD, World Bank, PAM and FAO. As mentioned earlier, the financial problem was linked to the poor partnership relations between the GADP and its sponsors. The level of the sponsors' financial involvement in the project was low from the beginning.

Training is another aspect of the GADP that could have done with better planning. Training themes indicate how many and how complex the activities were. Surprisingly, the training activities were not mentioned in the GADP objectives - an indication of inadequate planning. In addition to this, table 5-1 (performance indicators) tells us that the time spent on training ranged between 2 to 5 days. Training farmers about managing a business or a cooperative requires developing and explaining some concepts of financial management, stock management, human resource management, marketing management, etc. It doesn't seem feasible that people of different levels of education (some with only primary school) could all of them master such topics in a very short period of time. Training practice sessions, to follow on the instruction period, were not planned. The question comes to mind what the result of training is if it was not followed by the mechanisms of implementing lessons learned and by check-ups to see if the aims of the training (knowledge and skills) and outcomes (improvement of people's living conditions due to the increase of crop production and income) have been achieved.

The failure of the GADP in the area of training was linked to inadequate planning of training activities, which were beyond the coordinative and financial capacities of the project. Also, the quality of partnership between the GADP, training centres and funders, was poor. Good relations

between partners involved in a project should have been fostered from the earliest days of the project when training needs should have been identified and expressed by the beneficiaries of training and by the GADP planners. It was surprising that women and young people, who had been targeted as the main beneficiaries of the project were given so little attention in the training program while this category of people was most vulnerable to the poverty in Gikongoro and therefore badly in need of knowledge and skills.

Moreover, the GADP was involved in activities, which had nothing to do with its objectives: training the workers of MIJEUMA (Ministry of Sport), and the staff of Gikongoro province, that of districts and local authorities, as seen earlier. These administrative entities were independent from the training financially supported by the GADP which led to a degree of inefficiency in the use of resources.

If the GADP offered training opportunities in the area of cooperative and business management, this was because most farmers had only primary school, and some had never gone to school at all. The training was an indication that farmers were seen as not skilled enough to manage their businesses successfully in competing markets. Although training in farming technologies was provided, farmers continued to use traditional agricultural methods whereas the new technologies might have given them an opportunity to increase their production, both in quality and quantity, and to make an impact on the market.

Training for the farmers could be beneficial because it would have helped them to run successful businesses, increase the harvest of crops and income, and protect their land against erosion. However, training was not planned and couldn't make much of an impact because the time was too short to cover all the training needs and no following-up activities were undertaken to check whether the training was producing any positive results for the farmers. Training would have been one of the key critical success factors in the GADP.

#### **7.3.5.6 GADP and small and medium business enterprises**

As part of the promotion of development in Gikongoro, the GADP was interested in developing small and medium enterprises (SMEs) as a means of increasing income and creating new jobs in the rural area. As the United Nations Conference on Trade and Development (2003) states, small and medium enterprises (SMEs) contribute significantly to increasing the prosperity of nations. However, they need to cooperate with governments that offer supporting services to business



organizations. Governments provide skilled labour as well as legal frameworks, tax frameworks, rules and regulations. They also provide economic infrastructure such as transportation, and communication. This infrastructure gives SMEs access not only to the markets of suppliers, customers, competitors and workforce, but also to partners such as subcontractors and business associations. The SMEs may become more competitive by benefiting from environmental opportunities, notably organizational culture, technological advances, investment, income and wages, job creation and integration in international economy.

This was not the position that the GADP found itself in. Besides the instability of the environment which was not favourable for promoting small enterprises, there was a lack of economic infrastructures in terms of information technology and communication, roads and transport. That is why the GADP was obliged to construct roads which later became impractical. The GADP existed in the time when the economy of Rwanda was guided by a protectionist system, which did not allow the free movement of people, goods and services from abroad to Rwanda. That economic system did not permit the SMEs to be competitive. The products and services from foreign countries were more competitive than those that were manufactured and produced in Rwanda could be. This competitiveness was expressed in terms of low production costs and sale prices, along with good quality products. The taxation VAT, which was very high, increased the market prices in the Rwandan market. This problem coupled with that of the low level of local production, bad quality products and services compared to those from abroad, made the SMEs uncompetitive. The opportunities for export were extremely scarce because of the insecurity that prevailed in the country from 1990 to 1997 and because local production was insufficient for the national market, let alone for foreign markets.

According to Bguyonb and GADP (1993), the activity of promoting and developing SMEs was entrusted to the project PNUD/ BIT as subcontractor. Concerning loans, the subcontractor was CBs (Cooperative Banks) who covered 6 districts with total bank loans of only FRW 12 200 000 which is regarded as too small to finance 90 cooperatives of farmers. The sector of SMEs was not organized. Foreign Investment Advisory Agency (2006) and World Bank (2007) confirm that the sector of SMEs was basically informal because out of 70, 000 micro and small businesses only 1000 enterprises were registered for income tax. In this regard, one has some understanding for the reluctance of the CBs to invest money in a sector that was not formally regulated. There was risk involved. It has been stated that the activity of promoting and developing SMEs was subcontracted to PNUD/ BIT, but also to the CBs. Again, as a result of

poor planning, responsibilities were not defined for each subcontractor. Lack of sound planning no doubt is one of the reasons why the CBs manifested only very moderate interest in investing in the sector of the not formally regulated SME's. After all, they already were struggling with farmers who couldn't pay back their loans.

#### **7.3.5.7 GADP and construction subcontractors**

The GADP worked with a number of subcontractors. In the training area, subcontractors involved the centres IWACU and INADES. Road construction and rehabilitation were subcontracted to the SPPW. Cooperative banks were in charge of the component of bank credit.

According to Bguyonb and GADP (1993), the activities of road construction and rehabilitation were funded by IFAD (50%) and FENU (50%), and subcontracted to the Special Program of Public Works (SPPW). The work concerned with 7 roads in the north of the project zone, in very hilly terrain, with the use of a highly intensive workforce. However, only 12% of the activities were achieved and completed within 3 months by poor people of whom 25% were women. The construction of roads faced serious problems, due to the delays in the delivery of materials. The roads had been projected to be completed at the end of the year 1995 at an annual completion rate of 40 km. Construction reports were produced but became available with a delay of 6 to 12 months. There was confusion between project execution and project evaluation and the confusion impacted on the programming of the building activities. An additional budget of \$150,000 was needed for materials.

The relationships between the GADP and SPPW suffered from tensions, due mainly to the many delays and the fact that the managing director of the Program was based in Kigali, far away from the project zone. The Program devoted much of its time to the control of activities and management BY POST. While the IWACU and Cooperative Banks were represented in Gikongoro, the SPPW Program did not take the trouble to decentralize its activities to include Gikogoro, and the head office remained in the capital Kigali. Decentralization would have helped to monitor the progress of the construction of roads and buildings (Bguyonb and GADP, 1993).

In interviews for data collection for the current research however, three subcontractors working with the GADP said that they believed the project was well managed in respect of transparency and that it recorded many achievements such as:

- Creating new jobs for the people living in Gikongoro;
- Providing farmers with selected seeds and livestock;
- Developing marshland into farmland and increasing the production of farmers;
- Developing terraces and building storerooms;
- Training people on how to continue their activities after the termination of the project (continuation of getting fertilizers, and forming cooperatives);
- Providing financial assistance for cooperatives of farmers;
- Contributing to the development of business in the region;
- Being near the target beneficiaries.

One farmer said that there was no problem between the GADP and subcontractors even though there was an amount of money still owing. He indicated that all projects have to evolve on the basis of the opinions of people (beneficiaries), taking into consideration their importance in all the phases of the project's life cycle. For instance, he said, the animal health care centres and terraces are no longer in use.

The subcontractor E of the GADP added that the project was not properly planned. He said: "In the context of the contract that I concluded with the GADP, my company was in charge of:

- Rehabilitating one veterinary dispensary and building three veterinary dispensaries;
- Constructing three new bridges and rehabilitating bridges destroyed during the time of war and genocide.

Regarding the way that I worked with the GADP, I did not experience many problems except that at the closing date of the project, I was not paid an amount of 114,000 FRW because I was not able to find written proof of the outstanding payment. As far as the planning aspect of the GADP is concerned, the project was not well planned. For example, the project developed terraces which cost a great deal of money, but they were never used and are still unused. There was no preliminary study of environmental impacts on terraces. They were not used as they were not planned and people were not able to use them. The land is allowed to lie fallow."

Subcontractor J said that he concluded a contract with the GADP in terms of the development of terraces and the rehabilitation of veterinary dispensaries in Gikongoro province. Although he affirmed that he did not have any problems related to executing the contract, he concluded that at the end of the project, he was not paid on time because of lack of money. This was a

consequence of the war. He continued saying that the problem had been solved through part payments at the beginning of constructing the works.

Roads were essential in order to have access to the GADP infrastructures, farmers' fields and markets, and local government authorities. In addition to this, roads should have been an opportunity to create new jobs and increase income for the targeted people including young people and women. However, this component of the project did not significantly impact on their lives.

Had the GADP put more energy into the creating of sound planning and good communication with its partners, there might have been no confusion between the project's execution and evaluation activities which resulted in many delays in the delivery of materials for road construction, leading to budget overruns and tensions between the GADP and its subcontractor SPPW. The company was unwilling to cooperate with the GADP, refusing to establish an office in Gikongoro in order to be near the work sites whereas the Cooperative Banks and the training centre IWACU chose to be represented in Gikongoro, near the beneficiaries of the project. The GADP apparently made a mistake by selecting the SPPW, but it is difficult to understand why the GADP persisted in this mistake. A retention – if contractually envisaged – could have served to minimize the risk of delays. According to Burke (2001), retention consists of holding back for a limited period part of what is owed to a contractor to ensure that the contractor complies with the contract. One would expect the GADP to have used the retention to encourage the SPPW to finish its activities on the conditions specified in the contract, and to make sure of sufficient funds to pay another contractor, in case the SPPW failed to comply.

It was also stated that the SPPW produced reports on the work in progress, but it delayed in publishing them. This posed a serious problem in the context of the project management and evaluation because evaluation provides information on the project progress and environment impacts on the lives of the project stakeholders, and indicates areas of management that need improvement.

The GADP contributed to its own failure, the signs of which were apparent in the phases of initiation and planning but which became incontrovertible during the phase of implementation when the project was not able to coordinate the activities subcontracted to its main subcontractors.

#### **7.3.5.8 GADP Research and Development Department and other partners**

In this respect, one manager of the GADP said: “In cooperation with the GADP, FAO implemented a Chemical Fertilizer Project in Gikongoro area, a project which was operational before 1994. The project was intended to increase the production from agriculture and livestock. In this context, the project provided the farmers with lime (fertilizers). This kind of input was to solve the problem of the high level of soil acidity faced in that region. Therefore, the project made several attempts concerning the preparation of the soil and the use of lime for potatoes and wheat. As a result of the use of lime, the harvest of those crops increased to 8 tons. This of course caused the market price to drop. Therefore, the purchasing power of consumers increased and so did their well-being. Moreover, this was a great opportunity for the GADP to extend the market for its harvest. As an example, the GADP developed a commercial partnership with ETIRU (a manufacturing company, which transformed wheat into wheat flour). So, the wheat harvest was sold to that company. For this purpose, the GADP bought a new lorry for transporting wheat to ETIRU and selected some harvest areas, especially to promote and collect the crops of wheat and potatoes. The GADP formed cooperatives with the objectives of providing farmers with inputs such as fertilizers and seeds, and created a fund of almost 10,000,000 FRW for assisting those cooperatives. The GADP trained the farmers in this matter so as to prepare them for the period following its closing date”.

Unfortunately the GADP Research and Development Department failed to cooperate closely with the subcontracting organizations because the project continued to use traditional farming methods. And in this area, consultation with other key stakeholders like ISAR, FAO, Faculty of Agriculture, was not achieved. Research and development should have involved all project managers and subcontractors such as IWACU, INADES and CBs in search of increasing seed potatoes needed to cover producers’ needs (Bguyonb and GADP, 1993).

On the part of the farmers, five declared that the project intervened in the following activities:

- Increase of seeds and soil protection against erosion;
- Training people about storage of inputs and harvest;
- Protection of crops against diseases.

But 13 farmers said that they knew nothing about all that. They thought that these had been purely the affairs of the project and its partners in research and development. The project did not include the local people for joint research because it pursued its own interests. “This is very

different today with the closing project PEARL (section 3.4.3.2 Rwanda). This project collaborates closely with farmers in all research activities (coffee-washing stations for instance) related to improving the quality of Rwandan coffee, which is now the best on the world market”, another farmer said.

The GADP was blessed to have partners like the Chemical fertilizer project, training centres IWACU and INADES, CBs, ISAR, FAO and the Faculty of Agriculture. It should have inspired the project to build strong relations with these partners to promote and increase the crop harvests of potatoes and wheat, which were the main market crops and the biggest source of income and wellbeing of the people in the region of Gikongoro. With reference to the views of the farmers, it can be argued that the department of Research and Development collaborated with some farmers because they were aware of its activities for their benefit, while others knew nothing about the department and didn't think it had done anything with and for them. This problem could lead to question the degree to which the farmers and other stakeholders participated in the GADP.

### **7.3.6 Participatory development approach within the GADP**

The focus of this section is placed on cooperation of the GADP and its stakeholders, integration of women, conflict management and decision-making, and communication.

#### **7.3.6.1 Cooperation**

IFAD (1993) and Bguyonb and GADP (1993) indicate that the GADP failed in the areas of cooperation, needed for active participation of different key stakeholders. They mentioned notably land development, water management, training, and bank loans. As IFAD (1993) indicates, the project found out very late that there was a need to use the participatory approach. Cooperation could have been achieved through the vocational training centre IWACU by supporting cooperatives, or via United Nations volunteers who were active in renovating tracks and developing marshland and giving technical assistance. Within the project, the desired cooperation could have intervened between the research and development department and the follow-up and evaluation department. This would have helped to select the priorities of the project.

As IFAD (1993) states, the GADP had another opportunity to attain cooperation through the marshland development programme. The cooperation was needed to:

- Hire a manager with water management expertise, who would be in charge of the programme until the project's closing date.
- Strengthen collaborative relations with INADES in organizing and training people appointed to develop and renovate marshlands. Mutual ties should also have been established between women leaders and technicians.
- Maintain the water management facilities, but this would require that the training centre IWACU gave assistance to marshland committees and cooperatives of farmers in the process of combining their activities.

Concerning loans, even if the project PIA had a large number of outstanding loans to the GADP (because of non-refundable loans and subsidies), this should not have been a reason for the GADP to stay passive. Instead, consultation should have taken place between the GADP and the CBs building a strategy that might have helped to increase the amount of bank loans and investments in favour of farm activities and the repayment of the loans already granted (Bgyonb and GADP, 1993).

In earlier sections of this chapter, it is demonstrated that the partnership relations between the GADP and the main stakeholders such as Rwandan government, sponsors, farmers, banks, training centers and constructors were poorly constructed and maintained throughout the project's existence as some were not adequately integrated in the project planning and others had not been planned at all. The water management component, for instance, crucial for an agricultural project, had not been planned and there was no water management expert included in the planning phase. In the phase of implementation, this problem would have affected the project budget and other resources. These shortcomings hampered the implementation because they did not allow various stakeholders to be actively involved in the GADP. There is no true participation in a project when there is no genuine cooperation among all stakeholders from the beginning of the project. In other words, it is through good and strong partnership relationships, developed and maintained within and outside of the project during its entire life-cycle that stakeholders become active participants.

The GADP seemed neglectful in this regard. There was for example room for cooperation between the Research and Development Department and the Follow-up and Evaluation Department, but no attempts were apparently made to stimulate such cooperation. If relationships among internal stakeholders of the project were poor, how much more difficult would it be when it came to dealing with external stakeholders. The lack of healthy relationships among the GADP stakeholders did also lead to the poor representation of women in different components of the project because their needs and roles had not been made clear and so they were not absorbed as active participants into the project. The lack of inclusion of all potential stakeholders from the beginning onwards, did not allow for a continuous process of learning to take place: there was not sufficient cooperation among stakeholders and therefore no active participation.

This is in accordance with IFAD (1993), which states that GADP stakeholders seemed not to be directly concerned with the activities of subcontractors which made it difficult for the project to monitor subcontracted work. The GADP decided to strengthen relationships with subcontractors and to reduce the number of activities which were costly and, anyway, not successfully implemented by the project. However, having involved subcontractors, the project failed to coordinate their activities.

That the strategy of building stronger relationships with stakeholders, especially with subcontractors during the implementation phase, was not put into practice was the result of a GADP leadership that was not strong enough to deal with problems of partnership.

#### **7.3.6.2 Integration of women in the GADP**

As mentioned above, in its objectives, activities and funding schedules for different phases, the GADP did not consider women as specific and important participants among other stakeholders. Although the preoccupation with integrating women into the full project programs increased over time, no particular activity was planned with a view to stimulating women's active participation in different agricultural components. However, GADP (2001) asserts that attempts were made to integrate them into the project (Tables 7-6 and 7-7). These attempts included the recruitment of women for management responsibilities and the application of participative methodology in the implementation phase of the project. Participative methodology involved integrating women in cooperatives of women and mixed cooperatives.



**Table 7-6: Representation of women among GADP personnel**

Period	Job	Female	Male	Total	Female (%)
1990-1993	Low management	14	54	68	20
	Middle management	13	28	41	32
	Senior management	1	11	12	8
	Support agent	-	-	-	-
1996-1998	Low management	15	99	114	13
	Middle management	4	17	21	19
	Senior management	-	-	-	-
	Support agent	13	25	38	34
1999-2001	Low management	0	0	0	0
	Middle management	3	45	48	6
	Senior management	1	9	10	10
	Support agent	11	25	36	31

Source: GADP (2001).

In the period of 1990-1993, methods to promote popularization of the project's program were implemented with regard to each GADP activity. The system aimed at popularization would allow each family engaged in the program to progress in a continuous manner, according to its own possibilities in order to gradually increase its production and enhance its living standard. All family members were supposed to take part in all aspects of the learning processes involved: identification of opportunities available in their lives, priorities of actions to be taken, execution and evaluation of the results of choices made. Naturally, women were integrated in this process (GADP, 2001). As stated previously, out of 304 employees working in the agricultural sector (GADP and RDAS), only 54 were females. But this category represented 60% of small farmers, of whom 40% headed a household. Table 7-6 shows that the GADP tried to enhance the representation of women in the project, starting with its staff, but that representation, from the beginning to the end, did not go beyond 34% of the total number of staff.

Even if the GADP could have further increased women's representation in its staff, it wouldn't have helped to solve the financial problems faced by small farmers of whom women formed the majority. That women were not better integrated in the GADP was, again, attributable to the fact that this was not planned for in the early phases of the project.

It is of interest that during the period of 1996-2001, all interventions of the project in favour of beneficiaries, were made through cooperatives of women, men, or mixed cooperatives (GADP, 2001) as indicated in Table 7-7.

**Table 7-7: Representation of women in cooperatives supported by the GADP**

District	Number of cooperatives			
	Cooperatives of women	Cooperatives of men	Mixed cooperatives	Total
Nyamagabe	6	2	30	38
Karama	14	28	71	113
Rukondo	18	0	49	67
Musange	9	4	25	38
Karambo	27	10	52	89
Muko	21	2	68	91
Musebeya	16	1	37	54
Rwamiko	10	1	35	46
Mubuga	7	3	28	38
Nshili	15	2	46	63
Mudasomwa	11	9	84	104
Kivu	18	16	107	141
Kinyamakara	37	3	66	106
Total	209	81	698	988

Source: GADP (2001).

According to this table, women did become involved in the process of development. In fact, the columns 2 and 3 of table 6-8 show that the number of cooperatives of women (209) is greater than that of cooperatives of men (81). But financial support remained problematic. The cooperative banks were reluctant to invest in the rural areas because the sector was not formally structured and because of their poor relationships with the GADP. Failing repayment of bank loans by farmers was some justification for that reluctance. The training offered to farmers did not much for women although skills in business, cooperative management, and agricultural technologies, would have helped them to become more economically empowered. The category of women remained by and large unaffected by the GADP. In this regard, GADP (2001) states that the GADP in conjunction with MINAGRI and working together with Cooperative Banks as subcontractors, tried to stimulate the provision of loans to farmer cooperatives, but the initiative failed.

The experience of FAO (1999) indicates that successful and sustainable projects are those using participatory approaches but that the following conditions should be fulfilled:

- decentralization of decision-making,
- uninterrupted social and economic benefits for beneficiaries as a result of their active participation,
- Continual capacity-building (training) in different areas, continual support (money and time) from sponsors including governments for covering project initial and recurrent costs.

The participatory approach integrates all those covered by the project, embracing all categories including young, old, female and male, rich and poor and educated and illiterate, irrespective of ethnic identity and race. It can be effectively used where governments are decentralized. This is, because the policy of decentralizing government at the provincial, district and local levels promotes a process of continual learning among people, as people who are aware of problems will try and solve these on their own. That is where the strength of active participation comes in: participation of all people concerned with a problem or an opportunity, from the beginning to the end. According to the World Bank (2006), decentralization of governmental power and responsibilities at these different levels may provide people with power and a degree of autonomy in the processes of decision-making and problem-solving, and with protection of their economic, social and political rights against abuse of any kind.

The confused organizational structure of the GADP did not encourage the use of the participatory development approach. In fact, the GADP was a central government project under the guardianship of MINAGRI. The confusion between the GADP and the RDAS regarding their activities and particularly the leadership of the GADP made the situation so complicated that active participation of GADP stakeholders and their involvement in a continual learning process would not have been possible. Because the GADP had not drawn people of all categories into its planning processes, it could overlook the important social and economic needs of women. This attitude persisted even during implementation. This is in accordance with Hulse (2007) who observes that, for a long time, a great deal of women have not been well integrated in social and economic development although it has been proved that women are better than men in managing businesses and households. In the case of the GADP, women should have been a priority seeing they constituted the majority of the beneficiaries, farming and many of them heading households besides. Among all the intended beneficiaries of the project, women were obviously most in need of financial, technological and managerial support, integrated in economic activities that would generate income to fulfil the needs of their families (food, education, health, shelter, etc).

#### **7.3.6.3 Conflict management and decision-making process**

About procedures followed in conflict management, decision-making and implementation of decisions, eight farmers said that meetings were held, bringing together all the representatives of the Rwandan government, sponsors, other organizations, and farmers. After the meeting, those representatives went back to their respective organizations, together with GADP envoys, to

explain decisions made. There was also a commission in charge of following up on all activities and producing a report. Next, a meeting might be held, where all services involved with the GADP came together for decision-making. Afterwards, those concerned with the decisions were informed through envoys or via newspapers. Conflicts could be settled by opposing parties themselves, or, when they failed to do so, they could call on government authorities for assistance. Conflict resolution could be achieved through special commissions, instituted for conflict management and operating within cooperatives. In all of these matters, MINAGRI played a great role. There were cases in which the director of the GADP was fully authorized to hire or dismiss certain categories of employees. There are no records of cases ending up in judicial courts.

One would imagine that problems could have arisen between the Rwandan government and different stakeholders involved in the GADP, such as the big international organizations. Ten farmers said that they knew nothing about how such problems would have been solved. The only thing that they agreed on was that the war caused a great loss of people, resources of every kind, and of infrastructures built by the GADP.

It is positive that there were accepted ways of avoiding involving the courts of justice in conflict situations among the GADP stakeholders, as it helped to avoid waste of time, money and energy. However, decision making processes seemed not satisfactory because only the representatives of various stakeholders were involved. Instead, GADP top managers and leaders could have approached the farmers and organized meetings to discuss important issues related to project components which after all had been designed for the farmers' development. In a meeting of representatives, there is always the risk of participants not daring to speak their minds in the face of prominent personalities which means that powerful leadership figures have the last word anyway. It is also uncertain whether all stakeholders were really represented. Information about meetings was passed from mouth to mouth, so that distortions could easily occur. The language used was French whereas most farmers had only primary school. The way in which decisions were made and information was communicated to the various stakeholders did not allow for a true participation of the stakeholders, especially farmers, in the GADP.

#### **7.3.6.4 Communication**

Bguyonb and GADP (1993) illustrated the ineffective communication of information with an example of inefficiency in the Follow-up and Evaluation Department. The inefficiency was explained by the fact that the department kept information to itself. This resulted in a lack of general coordination and coherence between different subcontractors and the Regional Direction of Agricultural services of MINAGRI in Gikongoro. Another example concerned the distribution of developed land to individual farmers and famers grouped in cooperatives.

Bguyond and GADP (1993) assert that after receiving the developed land, the farmers refused to take care of it thinking that that was the responsibility of the project. This could be blamed on a lack of consultation and information at the beginning of the project, and also on pressure from big land owners who were not happy about the redistribution of land. The situation impacted negatively on the achievement of land development as set out in the project objectives, because by 1993, the project had developed only 35 ha in the valley of Nyamugali although the plans were to develop 160 ha.

These examples highlight the fact that the GADP paid little attention to information and communication and to identifying the needs of stakeholders whose participation in planning, implementing and controlling the project was not visible. In addition, in the time of the GADP, Information and Communication Technology was not yet developed in Rwanda, and unknown to the project.

In interviews for the current study, 16 farmers asserted that they got information regarding the GADP's activities and their progress through the following channels:

- Written documents (reports), bulletin (newspaper), announcements, telephone, visits or letters sent to the GADP through agronomists for more information about any matter regarding the project;
- Visits organized by the GADP for the cooperatives during the time of training;
- Meetings held in cooperatives or at the district level or in the villages: those meetings would, if necessary, be attended by a representative of the GADP for communication regarding the project;
- Workers of the GADP such as agronomists operating at the district level, by means of conversation.

When asked whether they did, or did not, experience problems in communicating with the GADP, the respondents reacted differently. Five farmers had no problems with communication. But 13 farmers mentioned the following problems. In the rural area it is not possible to use the postal system, public telephones or cell phones, internet or fax. The head office of the GADP is far away for most farmers as the project covered a wide geographical area, and they were often not given information in time. Farmers and agronomists of the GADP spent a lot of money travelling from their homes to the GADP and vice versa. Some agronomists had a bad reputation for looking after their own interests rather than those of the project and the farmers.

Six farmers agreed that each village had one agricultural instructor in charge of sensitizing the community with regard to new knowledge and skills and introducing them to developments in technology. The areas, demarcated by the GADP, were large and they did not have the capacity to reach all the farmers. The agricultural instructors in turn were not able to get to all the places and, as a result, not everyone who wanted to see the GADP for any matter related to the project was able to do so. That the project was operating across too large an area implied a waste of resources. Had the project addressed a small, manageable area, it would possibly have done better in its overall achievements.

Communication throughout the project life cycle is important for its success. In the phase of initiation, there ought to have been occasions for people to express their ideas regarding needs that the project should cover. This collecting of ideas could have been done through interviews or meetings. During the planning, information is needed for the estimation of required resources.

In the phase of implementation, the project collects data about what is being done and it disseminates this information among the different interested parties. The project team needs information on the degree of achievement so that it can solve problems that arise as project tasks are being accomplished. Sponsors need information as well, to check whether resources are being used efficiently. Beneficiaries need it to judge whether the project will meet their needs. And all of these interested parties may want to offer suggestions as to how make improvements in the project's performance or maybe they want to express appreciation for what has been done for them. At the end of the project, data are collected and findings are distributed among the various stakeholders to inform them whether the project has achieved its objectives and met stakeholders' needs.

However, the GADP neglected, it appears, both the gathering and the disseminating of information. No one could understand how the Follow-up and Evaluation Department collected data but, whatever information it collected, it kept to itself, while, for reasons mentioned above, various stakeholders were in need of it. In some respects the GADP seemed to act in ways quite contrary to what one would expect from a project aimed at promoting the social and economic development of people.

That communication was a problematic issue for the GADP was expressed, not only in terms of lack of transparency in the dissemination of information and the lack of dialogue, but also in the lack of communication facilities. Information and communication technology (ICT) was not yet developed in Rwanda and less so in Gikongoro. So there was no access to the internet and other ICT facilities, but also cell phones were quasi absent from the region while the world had already made the plunge into the information age.

It would have been difficult for the GADP to communicate information to farmers about the use of natural resources (land and water), storage of crop harvests, weather conditions, market prices of seed, crops and livestock because most of the farmers did have no access to channels of rapid communication, not even to radio or TV. ICT facilities today can be classified among powerful tools for sustainable project development, because they facilitate the fast and cheap spreading of information, so that management can become more efficient. ICT also facilitates technology transfer and flow of investment. The communication problems may well have contributed to a large extent to the lack of active participation of the GADP stakeholders in the project.

#### **7.4 CLOSEOUT AND SUSTAINABILITY OF THE GADP**

The data from the respondents and some GADP reports paint a picture of a project evolving in a turbulent environment and plagued by many different problems in its phase of implementation. But the researcher of the current study could not trace any document that referred to the closeout of the GADP. One manager of the GADP said in this regard that there had been some idea about having to plan the termination phase of the project in such a way that management of its achievements could continue after its demise. This preparation entailed the training of farmers about different aspects of the GADP's life cycle and creating the funds needed to support them after its doors were closed.

Six farmers said that the GADP, at the time of its termination, was crowned with valuable achievements such as the office building of the cooperative UNICOOPAGI constructed by the GADP (Image 7-11). UNICOOPAGI is the Union of Agricultural Cooperatives of Gikongoro. Another farmer said that UNICOOPAGI was one of the GADP achievements. The formation of the cooperative started just before the GADP closed down and was finished some months later. The project had trained farmers and given them a sufficient working capital: funding for inputs, a building (office) and means of getting vehicles. Some beneficiaries of the fund got inputs which were useful as they were applied for the benefit of the UNICOOPAGI, but in other cases the inputs were not used.

**Image 7-11: Cooperative UNICOOPAGI**



Five farmers said: “Some leaders of the project tried to take back the houses built by the GADP. The government, through its services and agencies operating in Gikongoro, also shared in the property of the GADP. As an example, the stores and animal health care centres and other buildings constructed jointly by the farmers and the GADP became the property of the local government authorities (districts) in Gikongoro province. In some cases, the farmers were not paid for the work done in constructing those buildings. But we who were grouped in cooperatives fought back against those agencies and took back our buildings. The project was terminated in bad conditions, and we were surprised to hear the news.” They went on saying that in reality, people were not left as orphans because the project had left them a fund for fertilizers to be used in agriculture and for livestock. Each district got between 3 and 6 million Frw (Rwandan currency) according to estimated needs. People did not take advantage of the fund to increase their production. This was due to the fact that they saw the project closing down and the staff leaving, so they thought that everything was finished.



This information indicates that the final phase of the GADP's existence was not adequately planned even though efforts were made in that regard. This is in accordance with 13 farmers, who affirmed that the closeout of the GADP was not planned. In fact, they said, at the closing date of the project stakeholders were invited to a meeting during which they were told that the GADP would end its activities. The project handed over its activities and infrastructures to some stakeholders, such as private enterprises, and the Rwandan government. During that final meeting, for instance, the GADP handed over stores to the cooperatives. It was only at that moment that they found out that the project was halting its activities. In other cases, cooperatives were, a short while before the final date, aware that the project was about to end its activities when they were instructed to participate in a merger of cooperatives into a bigger association so that they could survive the end of the GADP. There were no specific documents related to the preparation for and the final closing-down procedures which makes it difficult to consider those particular GADP experiences as instructive for the benefit of ongoing and future projects.

According to Burke (2001:102), "it is important not only to learn from the mistakes and successes of previous projects, but also to learn progressively during the present project. The project closeout can be subdivided into three parts:

- Compile historical data from previous projects to assist conceptual development, feasibility study and estimating for future projects;
- Compile historical data from previous projects and the current project to predict trends and problem areas on the current project;
- Generate a closeout report, which evaluates the performance of the current project against the project objectives, and makes recommendations for future projects."

From the viewpoint of Burke, the phase of the project closeout does not wait until the project ends its activities. Rather it starts with the phase of initiation during which data are gathered from the documents of previous projects. The information concerns areas of success and weaknesses, as well as recommendations, useful in the preparation of a good start for new projects in their initiation phases. With reference to the experience of the GADP, it seems that the project did not benefit from the advantages of consulting the reports of previous projects. The project took over activities and infrastructures of previous projects implemented in the region of Gikongoro. However, the project began by failing in the phase of planning (Chapter Six). The lessons of previous projects could have been a solid foundation for its planning, implementation and closeout. The failure to look for such lessons impacted even its closeout.

That is why the project was terminated at a time when most stakeholders had not expected its demise.

As mentioned earlier regarding the management of partnership relationships among the GADP stakeholders, the project did not treat all farmers in the same way, even in the end when some had already been prepared for the post-project period, getting trained accordingly, whereas others were not informed of the approaching closeout, except in the final meeting. This limited preparation for the post-project period meant that it was not going to be easy to maintain and manage the project's achievements after its departure. That is why some of its infrastructures such as fishing pools, veterinary centre buildings for domestic animals and storerooms were abandoned whereas others are used but in an unplanned and inefficient way. As the project left no detailed and comprehensive historical data, it is not easy to learn from its experiences.

Concerning the sustainability of the GADP, 15 farmers said that the aim of a project is the development of people. Therefore, the actions have to emanate from the project staff. The farmers should show the implementers what they need and these needs should be covered. The implementers are then expected to bridge the gap between the beneficiaries' real needs and the shortage of resources. The focus of any project should be much more on long-term planning. Otherwise it comes to an end before making any significant impact on the welfare of people. Any project must be long-term and operate in a limited geographic area, corresponding to its capacity in order to produce important impacts on the welfare of people. Moreover, it was suggested, that qualified staff should be employed in the management of the project. There should be a strong system of internal auditing for effective financial control. These farmers realized that sustainability of an agricultural project starts from the beginning with consultation between the beneficiaries and the project. Farmers need training in project management and access to bank loans. As some farmers are illiterate, they should be taught writing and reading skills to facilitate cooperation and consultation between the project and all the stakeholders. This is because illiteracy may interfere with communication and training. The respondents went on to say that a sustainable project is a project which is realistically planned and in which they are actively involved from the beginning. They found that the custom of receiving free inputs should be avoided as much as possible and people should be taught how to earn their own living by hard work, by learning skills in project management and evaluation.

The views of the respondents confirm that the GADP's sustainability should have been based on a solid foundation of careful planning, in which real needs, interests and expectations of all key stakeholders would have been assessed. The environment (physical, political, social, economic, demographic, technological and ecological environment) of the GADP should have been analyzed in-depth and considered throughout the planning and implementation phases. During implementation, there was a great need for an atmosphere in which true participation of all stakeholders in the project would have been possible. The project should have built and maintained strong partnership relations with its stakeholders and adequately empowered the main beneficiaries (farmers) with skills and knowledge that they really needed to protect their land through forestation and terracing, to keep it fertile for increasing food and market crops, and to be able to manage their businesses and cooperatives. The sustainability of the GADP would have demanded an efficient and effective management style combined with the evaluation of all its resources throughout its lifetime.

## **7.5 THE MAIN CAUSES OF FAILURE OF THE GADP**

The failure of the GADP had many causes. Some of these appeared to be the consequence of others. But the study found that the main causes were the following.

### **7.5.1 Weak study feasibility**

In the phase of initiation, the project failed to identify key stakeholders and their real needs because most of them were not involved in this phase of collecting ideas on the potential existence of the project. The environment was changing and threatening but that should have been all the more reason for the planners to get information from an environment analysis and from various stakeholders for the feasibility assessment before going any further. The poor feasibility study of the GADP had implications for the planning, implementation and closeout.

Major stakeholders were not clearly identified and their roles not clearly defined. Therefore, external sponsors withdrew their investment from the GADP. The project was left unable to sustain itself. The needs and interests of the farmers who were the main beneficiaries of the project were not taken into consideration from the beginning.

The lack of consultation between the GADP and its stakeholders did not allow for a participatory development approach. The sustainability of the GADP could depend on such collaborative relationships. Agreements made between the GADP and key stakeholders were not respected

during the implementation phase because relations were poor. As a result, activities which were subcontracted to certain stakeholders recorded delays. However, no measures were taken including penalties for subcontractors.

The failure of the GADP in its early stages did not allow for planning the closeout phase, which is aimed at formalizing the completion of the project, settling problems among stakeholders and preparing administrative documents that would be useful for other projects as well. This phase prepares for the handing over of the project to a new project manager as well. But the GADP was closed when most of its stakeholders did not expect it. They had not been really prepared before the closeout and the post-closeout period was not planned. Therefore most of the GADP's infrastructures (roads) deteriorated and others, such as storerooms and veterinary centres, are no more used and large investments, in terms of time and money, were wasted.

### **7.5.2 Inadequate environment analysis**

The dramatic environmental changes were manifested especially in economic fluctuations (increase of input prices, decrease of crop prices and market share, increasing inflation and exchange rates), political unrest (civil war of 1990 and genocide of 1994), demographic change (deaths, and exile of many people) and bad weather (droughts and floods). This situation resulted in budgetary overruns, increased overhead costs and increased market prices, so that the project became inefficient, ineffective and non-competitive on the markets of farm products. Internally, the project suffered much from communication problems and the lack of management and evaluation skills. The lack of an adequate organizational structure, thorough stakeholder and environment analysis, along with inadequate relations between the GADP and its stakeholders resulted in bad management and evaluation of the project. If the GADP had integrated risk management in the planning processes the effects of some unexpected events could have been lessened. For instance, the effects of droughts might have been to a degree controlled by water management. Planning the GADP as if it would be implemented in a stable environment was a big mistake. An in-depth environment analysis could have been a powerful tool for appropriate planning and implementation. However, such an analysis was not taken into consideration whereas the environment was among the greatest threats to the project's success.

### **7.5.3 Poor planning**

In the planning phase, the GADP failed. Planning was done on the basis of incomplete information as a result of the exclusion of important stakeholders (farmers) and key environmental factors. Stakeholders' needs, interests, roles and responsibilities were not clearly identified. The project had difficulties to define its objectives and activities and to identify resources necessary for the implementation. As a result, the project was involved in too many components, which were not proportional to the resources available.

This problem affected implementation. Delays in delivering materials and executing tasks were mentioned as a result of the lack of resources and conflicts between the GADP and its stakeholders such as farmers, subcontractors and banks. In the process of monitoring the project progress, it was difficult to make an objective judgment on the degree to which the objectives were achieved because they had been poorly defined, and the performance indicators, to some extent, did not reflect the reality, as they were not included in the project planning. Consequently, it was not easy to see whether the project was behind or ahead of schedule, overspending or under spending the budget so that necessary corrective actions could not be taken in time. The impacts of the project on women and small farmers were not significant. New agricultural techniques were introduced in rural areas but these were not used efficiently because of environmental constraints faced by farmers. The failure of the project had its origins in the early stages of its design and planning.

The GADP was a development project of which the outcomes would be translated into a better life in terms of education, health, accommodation for members of the community of Gikongoro. That is why farmers needed training to get more knowledge about new agricultural techniques to improve the quality and quantity of their crop production. They also needed knowledge and skills in business and cooperative management to develop the business sector as a means of solving problem of unemployment and income. However, in most cases, the training was too short and too poorly planned to book results. The planning had not been participatory and it had not considered the perspectives of stakeholders, particularly women. This situation remained unchanged during the lifetime of the GADP.

#### **7.5.4 Poor partnership relationships**

Poor partnership relations characterized the GADP from the very beginning because the project did not integrate all stakeholders' needs, interests, expectations, roles, and responsibilities and did not allow for joint planning. The inadequate planning had a negative impact on the implementation phase. The main sponsors withdrew their financial support, pretending that the crop harvest was decreasing. Some cases of embezzlement were reported but no action was taken against the perpetrators. The valuable infrastructures built by the GADP were being destroyed, but because of the lack of a sense of ownership on the part of the GADP and its stakeholders (mainly farmers) no responsibility was taken for their maintenance, protection and sustainability. Delays in executing project activities such training and construction works were also the result of a lack of resources and poor relationships between the GADP and its stakeholders, particularly the subcontractors.

The project failed to integrate women who were among the main beneficiaries because of their important economic and social role. Most of them were heads of their families and needed a project that would help them to increase jobs and income to meet their needs such as health, nutrition, school fees, safe water, electricity, communication and shelter. The closeout of the GADP took many stakeholders by surprise because of poor communication and relationships. The problems that arose during the GADP's existence could have been solved through good relationships between the GADP and its stakeholders by means of negotiated solutions and effective communication. Such relations could have promoted integrated participatory development approaches in the GADP to produce desirable outcomes and sustainability. But this did not happen because of weak leadership of the project.

#### **7.5.5 Lack of harmonization between management and evaluation**

Although the GADP evaluation was not adequately conducted because it involved only a small group of stakeholders and evaluators were too few (section 7.3.2 Human resource management), and some of them of doubtful quality, the information that it provided could still have helped to solve problems (section 6.3), but the information was not considered in the project management processes while the environment was deteriorating. The GADP should have used information, collected through sound evaluation procedures, to adapt to the threatening environment. The situation was not improved and the end of the project came without much noticeable preparation for the event and for the post-project period. The application of evaluation activities from the

beginning to the end of the project would have been a useful tool to improve the GADP management in order to attain desirable impacts on the lives of the local community of Gikongoro.

#### **7.5.6 Weak leadership**

The GADP leadership was not strong enough to build strong relations among stakeholders and make them collaborative, innovative, participative and communicative through joint planning, decision-making and problem-solving. The beneficiaries (farmers) did not get opportunities to become entrepreneurs in order to develop the business sector, which would be a valuable source of job creation and income and help in the creation of income-generating farm activities. The leadership did not stimulate such developments because it was hindered by the duplication of roles through the combined headship of GADP and RDAS, two separate institutions that did almost the same things in the same area. Competing and conflicting interests of these institutions made the GADP inefficient in the use of resources such as employees, money, materials and infrastructures and made it difficult for the director to be accountable for his responsibilities towards different stakeholders. In addition there were many changes in the GADP leadership. The management did not benefit from evaluation to make significant and desirable changes. This could be attributable to a low quality of leadership because a good leadership motivates people to work together in order to achieve organizational and individual objectives.

#### **7.5.7 Lack of use of systems thinking in the GADP**

The GADP, like other organizations, would have been perceived as a system, which is bound by its internal and external environment. Within the GADP, leadership and evaluation could have been valuable ingredients for effective and efficient management by bringing together the planning, implementation and control processes. However, inadequate planning and poor leadership resulted in poor relationships, which caused a lack of sufficient interest and participation of stakeholders in the project, poor management of resources, delays and conflicts as well as the lack of a sense of ownership, responsibility and accountability. Given that stakeholders had different needs, interests, expectation, roles and responsibilities, conflicts would be inevitable but they could have been minimized and settled through strong partnership among stakeholders, within and outside the project. Even within the GADP, all the departments did not work together and they all failed to accomplish their duties. As a result, they contributed to the overall failure of the project. The external environment (political unrest, high population

density, droughts, economic changes, etc) instead of offering opportunities, posed threats and worsened the situation faced by the GADP. The GADP was unable to establish internally and externally interconnected relationships between these hard and soft elements and integrate them in the planning processes.

## **7.6 CHAPTER SUMMARY**

The GADP opened its doors in the region of Gikongoro at a time when it was badly needed. For a long time, the region had been marked by frequent natural disasters (floods and droughts) which caused famines and increased poverty of people. As a development project, the GADP had to solve economic, social and environmental questions. People needed to increase food and market crops, as well as animal production. The food crops were required for subsistence and health. The market crops were needed to increase income, which was necessary to cover the costs of education, accommodation, etc, and to get involved in other income-generating activities (business activities). The animal production would provide not only milk and meat for survival but also for additional income and it would generate manure, a natural fertilizer. Covering all these needs required sizeable resources (material, human and financial resources) and the presence of economic and social infrastructures. Economic infrastructures involved developed upland and lowest valley land, roads, communication facilities, veterinary health centres (buildings), storerooms and crop markets. Social infrastructures required developing the educational sector into a source of skilled men and women who could be employed by the project or use their new knowledge for their own farming benefits. However, infrastructures were not available in the project area. That is why the project became involved in the building of roads, storerooms, veterinary centres, development of land and planting forests. The project also found that it was necessary to extend marketing opportunities for the agricultural harvest.

The achievement of these activities was fraught with difficulties because times were hard (political unrest and economic fluctuations). The external environment adversely affected the project, but the project itself also contributed to its failures, by poor planning, by the unclear definition of objectives, the inadequate identification of activities and stakeholders, and an unrealistic estimation of resources and of the time needed to complete its activities and the project as a whole.



When the time came to implement the planning, problems arose because of the lack of resources. Funds were not sufficient, as a result of limited involvement of funders and poor partnership relations of the GADP with its stakeholders, especially farmers, construction subcontractors, banks and training centres. These problems resulted in delays in the delivery of materials and executing tasks, and in budget overruns. A veritable participation of the stakeholders, especially women, in the project was not planned for and was never on the cards, also because of poor communication among stakeholders.

Although each component of the project was important and geared towards alleviating poverty in Gikongoro, in their totality they were too many in view of the limited resources of the project and the short time available for their execution. This problem led the GADP to outsource some of its components (roads, training and bank loans). But poor relations between the GADP and the subcontractors, along with a lack of resources, led to the halting of some components such as land development, the building of terraces and the distribution of inputs. Even the training activities, which had been subcontracted to training centres, were stopped. The problem became worse when people destroyed the GADP forests and no action was taken to stop them. Business development in the farming community failed because of lack of financial support from banks, which were only moderately interested in a rural area where farmers did not have a good reputation for repaying loans.

All the GADP departments failed to do what they were supposed to do. This general failure can be linked to the fact that the GADP was not managed in a systemic way. Its internal interaction was determined by hard and soft elements. Hard elements included resources such as money, employees and materials, infrastructure involving buildings of any kind, forests, terraces and developed land. Soft elements entailed for example organizational rules and procedures, organizational structure, organizational culture, employees' skills and experience, partnership relations, leadership, communication, participation in the project. Externally, the project interacted with various stakeholders (farmers, sponsors and subcontractors) and with its environment (aspects of economy, politics, weather, ecology and technology). Chapter Six and Chapter Seven indicate how these elements, whether hard or soft, internal or external, in their interconnectedness, affected the overall management of the GADP.

For example, it was demonstrated that inadequate leadership, associated with inappropriate organizational structure and political motivations, resulted in poor communication and partnership relationships among the GADP's stakeholders. Consequently, delays, budget overruns and embezzlement were manifested. The destruction of forests and abandonment of resources such storerooms and roads were explained by the lack of responsibility and accountability on the part of local authorities and farmers. This indicated that the lack of using systems thinking to analyze these interdependent and interconnected issues was among critical factors that contributed to the GADP failure.

Another critical factor leading to the project failure was inadequate evaluation. Evaluation, well conducted and properly used, is a powerful tool in the effective and efficient management of a project. In the management of the GADP, evaluation was not given its rightful place. This is dealt with in Chapter Eight.

## **CHAPTER EIGHT: ASSESSMENT OF THE EVALUATION PROCESS AND IMPACTS OF THE GADP**

In Chapter Seven, reflections in some GADP reports as well as opinions of interviewees regarding the management of the project from the beginning to its end, were presented. However, little information has been given about ways in which the project was, or was not, evaluated. Effective evaluation helps the project manager to do the right thing in the right way in order to attain the project objectives and meet the needs of stakeholders. This chapter deals with the process of evaluation in the GADP, the forms it took, and related reports, effects and impacts on the project. The chapter will present an assessment of the overall performance of the GADP, the main causes of failure and a model, designed from a systemic perspective, that could have led to a more successful project management and evaluation.

### **8.1 EVALUATION BY THE GADP**

#### **8.1.1 Principles of evaluation**

Evaluation provides information on what is going well and what are success factors, and indicates which parts of a project are in need of improvement (Wells 2007:3). It determines a project's relevance, degree of achievement of its objectives, its efficiency, effectiveness, impact and sustainability (The United Nations Centre for Human Settlements, 2003), seeks to explain the nature of problems, issues, or challenges that are experienced (Feek, 1988) and tries to take appropriate corrective actions (Owen and Rogers, 1999:3). Depending on the purpose of the evaluation and on the participants, evaluation can be formative or summative (Wells, 2007:12).

Formative evaluation is closely linked to the processes of strategical planning, making decisions and solving problems (Flood, 1999:142). Formative evaluation can be conducted during the phase of implementation to provide useful information for the improvement of the management of a project or program (Sanders, 1987:34), but at best it starts from the early beginning of a project to provide a basis for correct decisions that will facilitate improvements or desirable changes during the project implementation (Wells, 2007:12).

A summative evaluation is generally conducted after completion of a project or program (Mackay and Horton, 2003) to come to a conclusion about its merits. As Wells (2007:12) states, the required information is continually and methodically collected during the phase of the project implementation, but the evaluation results are generally used only at the end of the project.

The definitions of formative and summative evaluation suggest that evaluation should start at the very outset of the project, although with different purposes. Information from formative evaluation is used during the project implementation to improve the quality of the project, that from summative evaluation at the end to assess the project's worth. In both cases evaluation needs to be conducted throughout the project life cycle, as indicated in Figure 8-1.

**Figure 8-1: The place of the evaluation process in the project life cycle**

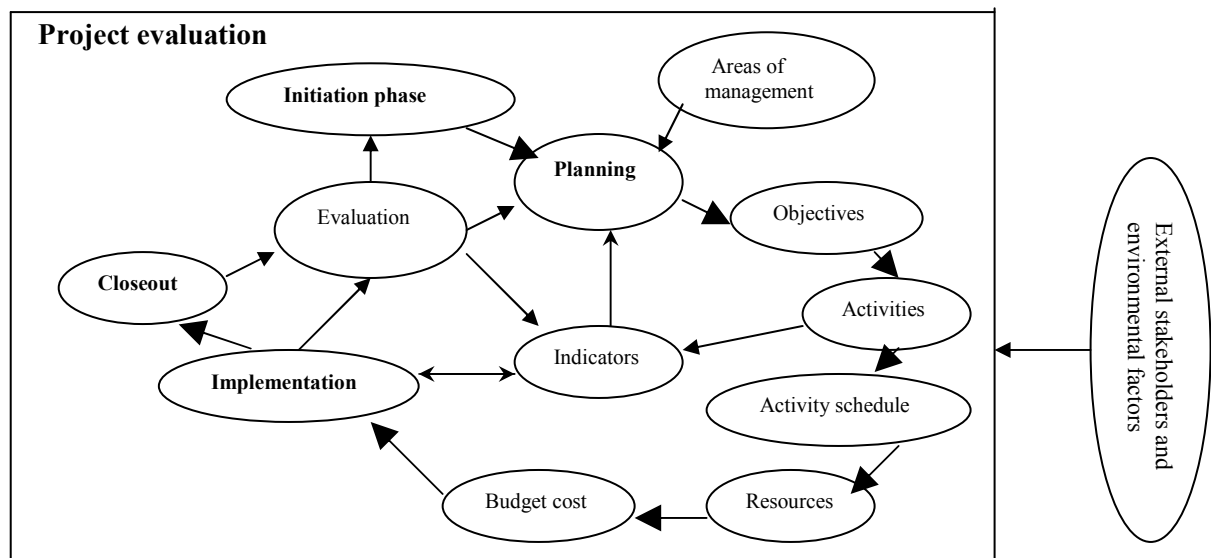


Figure 8-1 indicates that effective project evaluation starts with evaluating the initiation phase (feasibility study) leading on to the planning phase with the support of the several management areas. During project planning, evaluation is undertaken to check whether objectives are clearly defined, activities are identified and objectively scheduled, resources are identified and realistically estimated in relation to required budgets, and performance and impact indicators are well structured. Evaluation of the implementation phase follows whereby the structured indicators are used to evaluate progress and impact of the project. If things go as planned, the project ends. But this is not always the case because during the implementation changes, due to the environment and to requests from stakeholders, may necessitate readjustment of plans and

implementation. At the end of the project closeout reports are produced to evaluate the effectiveness, efficiency, coherence, impact and sustainability of the ongoing project. The reports can also be used as important inputs in the evaluation of the initiation phase of new projects.

The figure indicates two possible courses (chains) for a project's life. The first chain entails the following steps: evaluation-initiation-planning- objectives-activities-activity schedule-resources-budget-implementation-evaluation-indicators-implementation-closeout-evaluation. The factors of the environment and perspectives of various stakeholders are considered in the process of evaluation. This is in the ideal case of a project that is completed as planned. In reality, changes in the project environment often require the frequent revision of plans from the moment of their implementation until the final hour when closeout reports are produced for evaluating the project and for use by future projects in the initiation phase.

The second chain of actions includes the steps: evaluation-initiation-planning-objectives-activities- activity schedule-resources-budget-implementation-evaluation-indicators, followed up by the project management with a revision of all the processes of planning and implementation on the basis of information resulting from the evaluation processes. Then the chain continues with the steps of implementation-evaluation-indicators-implementation-closeout-evaluation. The environmental factors and perspectives of stakeholders are considered in the evaluation process because they may impact on the various actions in the chain.

### **8.1.2 Process of evaluation by the GADP**

According to IFAD (1993), evaluation in the GADP was done by the mid-term evaluation mission and the Department of Follow-up and Evaluation. The first evaluation of the GADP was undertaken in 1993 by the mid-term evaluation mission and its findings were published in the same year. Information for the evaluation was gathered from MINAGRI, project employees, farmers, other agencies concerned with the implementation, and local authorities. A number of field visits were made in the project zone. The first findings were available and discussed with MINAGRI. According to GADP (2001), the second evaluation by the mid-term evaluation mission of GADP activities was carried out during the period of 1996-2000. Unfortunately, the relevant documents could not be found in the archives of the GADP. According to Bguyonb and GADP (1993) and IFAD et al. (1993), the Department of Follow-up and Evaluation was in charge of:

- The functioning of the project mobilization and utilization of resources;
- The activities of the project and its organs in charge of subcontracting ;
- The effects of the projects corresponding with the short term objectives;
- Impact of the project corresponding with long term objectives (development of the project).

Diagnostic activities of research and development, and planning and programming activities, were also roles integral to the department. The department conceived, organized, supervised and synthesized activities associated with evaluation. The evaluation centered on 4 aspects: human resource management, material resource management, financial resource management, institutional relationships (Bguyonb and GADP, 1993 and IFAD et al., 1993).

The department of Follow-up and Evaluation collected data through observation (visits), and from documentation and flow charts. Field visits, announced and unannounced, were made to check the situation on the ground and the operational functioning of the project departments as well as the data presented in activity reports from the technical staff, working in different districts of the project zone (Bguyonb and GADP, 1993 and IFAD et al., 1993).

GADP (2001) states that for carrying out evaluation activities, the department used 3 permanent employees who assisted the managing director, and used the following documents in collaboration with all the partners of the project:

- recommendations from participative workshops in which beneficiaries played a great role;
- periodical reports (monthly, trimester, semester, and annual) written with reference to technical reports produced by technicians and the documents resulting from following -up done concerning the use of human, material and financial resources; and
- reports from studies and surveys.

According to Bguyonb and GADP (1993) and IFAD et al. (1993), other documents included flow charts of farm services of the project, job descriptions, schedules of activities, periodical reports, cost accounting of materials, accounting documents, and fixed assets (vehicles) documents. The review of those documents was completed by surveys. As Table 8-1 illustrates, a list of documents produced through surveys was established in the form of tables, indicating the period of survey, activities, planned and produced documents, degree of achievement and, possibly, remarks.

**Table 8-1: The GADP's reports**

<b>Period 1990-1993</b>				
<b>Activities</b>	<b>Documents planned</b>	<b>Documents produced</b>	<b>Achievement (%)</b>	<b>Remarks</b>
1. Documents of elaboration of work plan with a list of indicators and activity reports	Documents and activity reports	Documents produced	100	
2. Regular follow-up of functioning of the project and project activities	1 regular follow-up	1 regular follow-up	100	
3. Quantitative survey of adoption of vulgarization themes	1 survey report	1 report	100	
4. Survey of agricultural exploitation accounts	1 survey report	1 report	100	
5. Survey of poorest households struck by the drought in 1990	1 survey report	1 report	100	
6. Agricultural aids (specifically on livestock)	1 report	1 report	100	
7. Activities of diagnostic on agro-pedo-zoo-socio-economic data in project zone	1 report	1 report	100	
8. Experimentation in the project zone and rural area: soil development and fertilization, availability of useful vegetal material and resources in animal food	Results (documents) of experimentation on 8 seasons from 1991	Partial results of experimentation	50%	Experimentation would be done on 8 seasons but the program was disturbed by the dramatic events of genocide in a April 1994
9. Permanent participative survey of 21 exploitations and 45 cooperatives to measure monetary flows	1 survey report	1 report	100	
10. Survey on sale of inputs and commercial wheat and potatoes (1992)	1 survey report	1 report	100	
11. Reinforcement of evaluation and follow-up systems	Set up an evaluation and follow-up system	Set up an evaluation and follow-up system: experimental application	80	Follow-up to be performed with availability of necessary resources
<b>Period 1994-1997</b>				
12. Survey of the situation of the project GADP from the beginning	-	1 report	100	
13. Determination of the main priorities of the work plan and annual budget (WPAB)	Documents of (WPAB)	Documents availed	100	
Activities report and other documents	Documents of reports	Documents of reports availed	100	
14. Survey on cooperatives situation	1 survey report	1 report	100	
<b>Period 1998-2001</b>				
15. Production of WPAB documents 1998-2000	WPAB documents	Documents availed	100	
16. Production of documents of activities reports	Documents of reports	Documents of reports produced	100	
17. Visit reports and regular follow-up	Visit documents and follow-up reports	Documents produced	100	
18. Survey of agricultural exploitations and inputs accounts	1 report	1 report	100	

19. Survey of agricultural production systems	1 report	1 report	100	
20. Study of production costs of main crops in Gikongoro province	1 report to be produced	1 report produced	100	
21. Feasibility study of financial system on agricultural and veterinary input credit	1 report	1 report	100	
22. Mid-term evaluation of project activities (1996-2000)	1 report	1 report	100	
23. Update meteorological data and indicative prices of the main farming products	Database	Data availed	100	

Source: GADP (2001).

The table lists 23 reports on the project progress. According to GADP (2001), 96 other, new documents, produced jointly by the GADP and other stakeholders or contributed by external evaluators and researchers, were included in the GADP report of 2001. Out of these 96 documents, 78 documents were available for the period of 1990-1993 as against 18 documents for the period of 1996-2000. Except for 1994-1995 (the period of war and genocide and their consequences), the GADP had high levels of documentation for enhancing its management and leadership and to enable it to meet the needs and expectations of key stakeholders involved with the project.

As far as the findings of the investigations are concerned, Bguyonb and GADP (1993) state that these were synthesized into a document used for measuring performance indicators, detecting the project deficiencies, making decisions and taking corrective actions. The GADP (2001) confirms that the findings of evaluation gave the full picture of the project and informed the managing director on the necessary corrective actions and reorientations, as well as providing useful data on:

- Plans for work and annual budget;
- The advancement of the activities in the field;
- Reports on activities progress (on weekly, monthly, trimester, semester, and annual basis);
- Reports on visits, reports of surveys conducted and reports of forecasts and evaluation of crops;
- Preparation and evaluation of campaigns;
- Personnel performance evaluation;
- The utilization of human resources, material resources (stores, vehicles, etc) and financial resources.



- Availability of database of the prices of main farm products and a meteorological database.
- Bguyonb and GADP (1993) add that most of the information provided by the findings was related to those areas on which the project concentrated its major efforts to meet key stakeholders' needs and expectations. Those areas were:
- Feasibility study of financial system for getting working capital (farming and veterinary inputs);
  - Environmental protection and development of marshes and valleys in Gikongoro Province;
  - Study of the production costs of the main food crops in Gikongoro Province;
  - Profitability of export crops like coffee and profitability and development of fishing in Gikongoro Province;
  - Training IN the strategy of elaborating intensive campaigns of popularization;
  - Cooperatives and associations management;
  - popularization of small farming organizations;
  - Training people IN rural auto-promotion, and management of small development projects;
  - Poverty in Gikongoro;
  - Procedures of administrative and financial management of the GADP.

Unfortunately, IFAD et al. (1993) and Bguyonb and GADP (1993) state that the document on the findings was only used by the managing director of the GADP and the accounting-management division. According to Bguyonb and GADP (1993), the Department of Follow-up and Evaluation was found to be ineffective because it was involved in too many activities that were beyond its capacity. That is why it was recommended that those activities should be simplified, and surveys and indicators reduced, so that surveys could be concentrated on action for necessary upstream improvements.

When asked about the evaluation process of the GADP throughout its life cycle as well as about the evaluators, the role of evaluation, the implementation of the results from evaluation and the period of evaluation, the respondents (farmers) in the current study offered widely differing views. In fact, 11 farmers knew nothing about the situation. "We could not interfere with the management of the project on which, however, our lives depended", one farmer said. Seven farmers stated that the project had its own evaluators but also used some external evaluators. Senior managers would have taken part in the evaluation of the project. MINAGRI played a significant role in evaluation as well. The project had, besides, a commission of evaluation in

charge of evaluating the project twice in two trimesters (August-December and February-June), corresponding with seasonal crops.

Referring to the importance of evaluation, only one farmer said that evaluation was to measure progress on the project performance. Another farmer said that the evaluation punctuated the agricultural seasons and the related crops. The results from the evaluation were to be implemented in the four months following on the evaluation. The remaining farmers that were interviewed did not know what evaluation was all about, nor what its value was and who participated in the activity.

### **8.1.3 Weaknesses of the evaluation process (formative evaluation) within the GADP**

The information from GADP documents and respondents indicates that the GADP had a number of groups of evaluators. These included the mid-term evaluation mission, the department of Follow-up and Evaluation, MINAGRI, senior managers, agronomists working at district level, and external evaluators. The mid-term evaluation mission involved MINAGRI, project employees, farmers, other agencies concerned with the implementation, and local authorities. Thus, the project involved many evaluators. However, according to the farmers, they were not adequately represented in the evaluation process because most of them knew nothing about it.

It seems that the project tried to involve a range of stakeholders in the process of evaluation. However, as seen in Chapter Six, GADP evaluation was not planned. Evaluation planning should include the consideration of evaluation objectives, participants in evaluation, forms and purposes of evaluation, process of evaluation, methods of data collection and analysis and evaluation users. Evaluation did not appear either among the project objectives or in the table of performance indicators. The evaluation activities were not clearly defined. Considering the complexity, size and technical aspects of the project, three people were not enough to cover the evaluation of the whole project zone and the evaluation activities seemed to be too many to be carried out by three permanent employees, not qualified in the field of statistics and project management and evaluation, although they were assisted by ten part-time employees. In addition, the evaluation was limited largely to resources management, while the emphasis should also have been on the environmental conservation and protection, that is, on the highland, the lower valleys and the forests. These natural resources were, a few years after the implementation of the project, abandoned to their fate.

An examination of the activities carried out by GADP evaluators, suggests that these activities were beyond the capacity of the evaluators because their number was small and their education level was low although the GADP (2001) confirmed that the finding from the evaluation gave the full picture of the project for corrective actions. With reference to tables 7-2 and 7-3 (Chapter Seven), the department had only 2 experts, and only three permanent employees out of 13. The others were part-timers. Most of those employees had only high school. In the circumstances, it is possible that the information from reports is not as sound as it ought to be. It would also be difficult to distinguish evaluation done by the GADP from other forms of evaluation because the same persons jointly carried out the different and separate evaluation tasks and the reports, produced on the basis of the data of surveys, were used simultaneously for monitoring evaluation (measuring the progress and performance of the project on a regular basis), and for impact evaluation (measuring effects and impacts of the project for a given period of time). In some cases, impact evaluation can make use of selected data from monitoring evaluation but, because these two forms of evaluation usually have different purposes and participants and are even undertaken in different environments, the information that they generate is also different.

Moreover, one department (Follow-up and Evaluation) alone should not have been entrusted with all the activities ranging from the planning to the dissemination of the information while there were so many stakeholders, within and outside of the project. The information from surveys could get distorted as a result of a limited number of evaluators with limited skills being involved in all the evaluation activities throughout the entire evaluation process. Therefore an independent external evaluation was needed. It must be remembered that the GADP offered, through its training centers, training for evaluation activities, but trainees complained that the time for training was too short to cover their training needs. This might also imply that the knowledge and skills of the project evaluators were limited. The limited educational background of the evaluators cannot have been a sound preparation for the function of independent evaluator. Distortion of information could occur, accidentally, or even to avoid conflicts with the boss when it came to evaluating his actions and those of other senior managers, as well as their accountability. In these circumstances it was justifiable that the department was advised to conduct surveys jointly with all the users of information from those surveys.

The methods used by the Department of Evaluation and Follow-up, were mainly based on field visits and documents. The data collection was difficult because the GADP covered a very extensive and hilly region. For this reason thirteen evaluators were not sufficient to evaluate the internal services of the GADP departments and to go and see all its activities (roads, forests and crops of farmers). The project was struggling with problems of resources (money, vehicles, and communication facilities). The road network was poor (in quality as well as quantity), which complicated transportation issues. Compiling the documentary review would have been hindered by the poor management of archives. During the time of interviews, at least ten documents, needed for his documentary review could not be traced by the reviewer and those documents that were available, were kept at home by one ex-manager of the project. If the evaluators were possibly lacking in professional skills, their efforts were certainly further complicated by the non-availability of documents needed for data collection. These problems, linked to the methodology used by the evaluators, would be the reason why the project brought out 137 reports for the period of 1990-2001, but that only 23 of these were produced by the GADP's employees, all of them related to the areas of resources management, inputs, crops and markets, and livestock.

Concerning the use of the evaluation findings, the GADP had a number of documents that could have been helpfully used to improve its management and leadership, even if the quality of the information could, perhaps, not be fully trusted. It is not conceivable that only two departments of the project shared in the findings (the accounting division and the project head office). The GADP failed to identify potential users of the information contained in the reports and, hence, refrained from communicating to them any information that might have been useful. Again, this comes back to poor partnership relations with stakeholders and poor quality of management. It implies that very few stakeholders, involved in the process of decision-making, would have been knowledgeable about the project's state of health and their decisions would have been made in a vacuum.

The GADP had various internal and external stakeholders involved in evaluation but nor the documents nor the interviewees could provide the researcher with any information about how, in the field of evaluation, they collaborated with the project and among themselves in the evaluation area. Again, people who were supposed to be working closely with the project knew little about what the project did. This confirms that little importance was given to evaluation within the GADP. and that is possibly also why the department of Follow-up and Evaluation

was not well integrated in the GADP planning and had little to contribute to changing and improving GADP management even if the project was operating in an environment that changed at a dangerous speed. That evaluation had little impact on the project makes sense in view of the fact that only two project departments shared in the gathered information. Normally such findings come into their own only if the evaluation process has been participatory and conducted from the perspectives of various stakeholders who, because of their involvement are likely to be keen on implementing the findings as well.

Information from the GADP's documents and from respondents indicates that the evaluation, conducted in the GADP, was essentially limited to monitoring evaluation, which is usually done during the project implementation to measure its progress and to compare planned progress as against actual progress of activities. This option was, however, not useful for the success of the project. In addition to this, the basis on which comparisons were drawn between planned and actual activities was doubtful. Table 6-1 of indicators also makes some of these shortcomings apparent. The implementation of the project got into difficulties because it was based on a poor baseline plan and on the basis of this it was difficult to predict a successful implementation of the GADP.

As Burke (2001:193) asserts, the baseline plan is used as a means of achieving the project objectives and as an outline of required conditions. The baseline combines various documents, which together describe the path that the project should follow. The project's baseline plan is the course to steer, with tracking and monitoring functions ascertaining the project's position in relation to time, procurement, resources and costs. It is a useful document for effective project control but it requires the measurement of the project performance at the right time to take corrective action. The document is shown in Table 8-2. It is a good tool for preparing performance and impact indicators.

**Table 8-2: Project control**

Type of control	Planning documents	Control documents
<b>Scope management:</b> The scope of work defines what the project is producing or delivering. The control of the scope of work is also called configuration management.	<ul style="list-style-type: none"> <li>• Project charter.</li> <li>• Work breakdown structure.</li> <li>• Activity list / bill of materials</li> <li>• Drawing register.</li> <li>• Specification register.</li> <li>• Part list contract</li> </ul>	<ul style="list-style-type: none"> <li>• Project communication.</li> <li>• Impact statement.</li> <li>• Concessions.</li> <li>• Modifications and variations</li> <li>• Requests for change.</li> <li>• Report of closeout</li> </ul>
<b>Technical support:</b> Technical support from the design office extends from interpreting the client's brief to addressing day to day problems with statutory regulations and good building practices.	<ul style="list-style-type: none"> <li>• Client's brief.</li> <li>• Statutory regulations. Specifications.</li> <li>• Calculations of design.</li> <li>• Build method.</li> </ul>	<ul style="list-style-type: none"> <li>• Impact statements</li> <li>• Configuration control.</li> <li>• Commissioning as-built drawings</li> </ul>
<b>Time management:</b> outlines the sequence and timing of the scope work.	<ul style="list-style-type: none"> <li>• Network diagram</li> <li>• Key dates / milestone schedule</li> <li>• Scheduled bar chart</li> <li>• Rolling horizon bar chart</li> </ul>	<ul style="list-style-type: none"> <li>• Progress report</li> <li>• Revised bar chart</li> <li>• Gantt chart</li> <li>• Earned value</li> <li>• Trend documents</li> </ul>
<b>Procurement management:</b> The procurement function identifies all the bought-in items. This must be procured to specification, time schedule and budget.	<ul style="list-style-type: none"> <li>• BOM, parts list</li> <li>• Material requirement planning</li> <li>• Procurement schedule</li> <li>• Procurement budget</li> </ul>	<ul style="list-style-type: none"> <li>• Purchase order</li> <li>• Expediting status report</li> <li>• Budget and revised procurement schedule</li> </ul>
<b>Resource management:</b> Resource management integrates the resource estimate with time management to produce the resource forecast. This is usually related to manpower requirements.	<ul style="list-style-type: none"> <li>• Resource availability Resource forecast</li> <li>• Histogram of resource levelled manpower</li> </ul>	<ul style="list-style-type: none"> <li>• Time sheet</li> <li>• Revised manpower histogram</li> </ul>
<b>Cost management:</b> Cost management allocates budgets and cash-flows to the work packages	<ul style="list-style-type: none"> <li>• Activity budgets</li> <li>• Department budgets</li> <li>• Cost breakdown structure</li> <li>• Cash-flow statement</li> </ul>	<ul style="list-style-type: none"> <li>• Reports of expenditure</li> <li>• Cost-to-complete and Committed costs</li> <li>• Earned value</li> <li>• Revised budgets</li> </ul>
<b>Change control:</b> As the project progresses, the scope of work is revised and controlled through the following documents stated in column 2	<ul style="list-style-type: none"> <li>• Extras to contract</li> <li>• Change requests and concessions</li> <li>• Project communications</li> <li>• Drawing revisions</li> <li>• Non conformance reports (NCR)</li> <li>• Impact statements</li> <li>• Modifications and variations</li> <li>• Specification and configuration revisions</li> </ul>	
<b>Quality management:</b> Quality management outlines how the company will assure the product and achieve the required condition.	<ul style="list-style-type: none"> <li>• Quality plan of project (ISO 9000)</li> <li>• Parts list and specifications/ standards</li> <li>• Plan of quality control</li> </ul>	<ul style="list-style-type: none"> <li>• Reports of inspection</li> <li>• Concessions</li> <li>• Reports of non conformance</li> <li>• As-built drawings</li> <li>• Change requests</li> <li>• Data books and operation manuals</li> <li>• Commissioning</li> </ul>

Type of control	Planning documents	Control documents
<b>Communication management:</b> The communication management function is to disseminate information and instructions to the responsible parties.	<ul style="list-style-type: none"> <li>• Lines of communication</li> <li>• Distribution list</li> <li>• List of controlled documents</li> <li>• Schedule of meetings and agendas</li> </ul>	<ul style="list-style-type: none"> <li>• Transmittals</li> <li>• Minutes of meetings</li> </ul>
<b>Human resource management:</b> This function sets the framework for human factors	<ul style="list-style-type: none"> <li>• Project organization structure</li> <li>• Responsibility matrix</li> <li>• Job description</li> <li>• Work procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Time sheet</li> <li>• Performance evaluation</li> </ul>
<b>Environment management:</b> This function considers all the external issues that may affect the project.	<ul style="list-style-type: none"> <li>• Laws and regulations</li> <li>• Environmental issues</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental report</li> </ul>

Source: Burke (2001:193-196).

The table indicates that planned documents in the management areas are compared with control documents from monitoring evaluation. Deviations from these comparisons can be favorable or not. In the case of favorable deviations, success factors are identified to be reinforced in the future. In the reverse case, failure factors are identified and measures are taken to weaken or dispel these. The table indicates that the project control starts at the beginning with clear definitions of the project scope, technical analysis, schedule, quality, time, resources, etc. The evaluation continues with the implementation through monitoring, whereby control documents are produced for each area of management. Actual activities are compared to planned activities to check if the project is progressing towards the achievement of its objectives.

For this reason, Burke (2001:192) argues that there is a need for project monitoring. As a project increases in size and complexity, the progress reporting needs to move from a subjective assessment of the progress to a more structured approach. The unsuspecting project manager should beware of the overoptimistic reporting trap. If the reported progress has been accurate from the outset, a trend to underperform will prompt corrective action in the early stages of the project.

A successful project should produce well structured documents based on the baseline plan that covers the project management areas. At the time of project monitoring, the documents should help to check whether the project is behind or ahead of schedule, overspending on its budget or under spending so that corrective action can be taken in time. As far as the GADP is concerned, section 7.3.5.7 (GADP and construction subcontractors) indicates delays in the delivery of

materials causing delays in construction. Delays in producing and publishing progress reports were also reported. The problem affected the processes of problem-solving and timely decision-making as regards necessary improvements.

Thus, effective evaluation using different forms of evaluation should be done during the entire life time of the project. In the initiation phase, proactive realistic evaluation could have determined the financial, social, economic and environmental feasibility of the GADP and helped to prevent poor planning, which led to poor implementation. If the evaluation was well planned, conducted and harmoniously integrated in the GADP management, many problems of management could have been avoided or settled in a way that would have positively affected the local community of Gikongoro. Section 6.1.1 (Terms of reference of the GADP) refers to a reorganization of the GADP in 1992. This reorganization was done to adapt the GADP to the national structures of MINAGRI and not to revise its plans and better adapt them to stakeholders' needs and to its organizational environment.

Monitoring evaluation on the basis of all the documents that the project produced for the different management areas would have led to desirable changes if only the GADP had been willing to cooperate closely with its stakeholders. Interactive evaluation was what was needed to evaluate the GADP implementation at an early date to check if it was making positive impacts or not. But lack of cooperation with its stakeholders would not allow this to happen. The project had difficulties in producing the closeout report because evaluation was poor and most of the documents that had been produced through surveys and that would have provided information for that final report were not available. To conduct an adequate impact evaluation which is normally undertaken on the basis of interviews, observation and information that has been systematically collected from reports documenting evaluation, would have been problematic. Hence, it is difficult to learn from the GADP experience because it has been incompletely documented. The final report should have presented all the data, related to the planning of the project, stakeholders and their cooperation, strengths and weaknesses, problems encountered and their solution, unsettled problems, lessons learned and post-project management. Thus, the formative evaluation failed to do what it could have done for the benefit of the GADP and its stakeholders, as well as other existing and potential new projects. The Department of Follow-up and Evaluation failed in its duties, as discussed in section 8.2.



## **8.2 ASSESSMENT OF THE GADP EFFECTS AND IMPACTS**

This section deals with assessing the summative evaluation and focuses on effects and impacts made by the GADP in Gikonkoro.

### **8.2.1 The GADP effects**

The summative evaluation should have produced data on the achievement of the GADP objectives, but no document of the GADP provides such information. The formative evaluation that could have contained relevant information was poorly conducted and most documents produced from surveys were not available. Six farmers agreed that the GADP had opportunities and various sponsors, such as the Rwandan government and big international organizations like World Bank, FAO, and PNUD. However, they opined that the GADP did not achieve its objectives for the following reasons. The project region was overpopulated in proportion to the productivity of the land and the instability of the Rwandan economy. The bad weather (droughts and heavy rains), and the war and genocide of 1994 destroyed almost all the achievements of the project. Target beneficiaries were not familiar with the objectives of the project from the beginning to the end. The conclusion and execution of the agreements that they signed with the GADP were negotiated without any references. Therefore, it was not possible for them to know if the objectives were not achieved. The project implemented certain activities beyond its capacities, without taking into consideration the real needs of the target beneficiaries. The bad leadership, management and control of the GADP and embezzlement of its funds were given as factors contributing to failure.

The tragic events that struck Rwanda did not spare the GADP, nor did the bad weather. But the GADP had helped to dig its own grave. Apart from external events (section 5.4.3 Climate environment) and demographic changes (section 5.4.4 Demographic environment), the poor management of GADP's resources exacerbated the depletion of the forests that it had planted (section 6.3.4 Management of the GADP's inputs and infrastructures). This problem was a major cause of regular droughts and famines in Gikongoro. Delivery delays of inputs (seeds and fertilizers) caused delays in farming activities and reduced the crop harvest and income. The poor relations of the GADP with its stakeholders and inefficient management were at the origin of these delays. The farmers were granted loans but the rate of repayment was low. The resources of the GADP were destroyed, but stakeholders had lost interest and had no sense of being co-owners of the project. The poor planning had too many activities, which were not

clearly identified and defined, made implementation difficult. If some stakeholders manifested little cooperation, it was also because their roles and responsibilities had not, or only vaguely, been defined. This was the cause of conflicts in executing contracts and delayed GADP activities.

### **8.2.2 Impacts**

According to the GADP (2001), the project organized and conducted an evaluation, which covered the period 1990 – 2001, through a joint commission made up of the representatives of the GADP, MINAGRI, MINEFIN (Ministry of Economic Planning and Finance), IFAD, and CEPEX. The main purpose of the mission was to evaluate the achievements of the project from January 1990 up to the date of evaluation and to define what lessons could be learned from the project's implementation. The evaluation was done at three levels: project technicians, beneficiaries, and local administration. The results indicated that the GADP had contributed little to agricultural development and animal production, access to bank loans, increase of micro-enterprises, the introduction of techniques and welfare of target groups.

#### **8.2.2.1 Agricultural development and livestock**

As IFAD (1993) observes, the results of the evaluation showed that the GADP had a limited impact on agricultural development. Inputs were used at the lowest level and new agricultural techniques appropriate to small farmers were few. The report indicated that cash crops (wheat and potatoes) had not increased as expected because of diseases. As the harvest of wheat had not increased, it was predictable that sponsors might withdraw their subsidies, which would mean a heavy burden for the GADP in terms of transport costs of inputs and products. It had been predicted that the increase of sweet potatoes and beans would improve the quality of the family diet for those people who were most vulnerable, particularly small farmers. But this was not realized as the project failed to extend the agricultural activities that have helped to increase the harvest of food and cash crops. In short, the project did not achieve the objectives of improving the nutritional value of the family diet and food security. Similarly, Bguyonb and GADP (1993) hold, that nothing special was achieved that made the quality of life in the region of Gikongoro better than it had been in previous years.

IFAD (1993) adds that the project wanted to extend agricultural activities and provide intensive training for the use of new agricultural techniques. However, the beneficiaries seemed to remain unaffected. This has contributed to a decline, or stagnation, of the cash crop harvest. This decline or stagnation was associated with the fact that:

- Only a few new techniques were provided by the Research and Development Department;
- Techniques were uniformly applied without taking into account specific needs of farmers and did not correspond to their real priorities;
- The use of techniques against erosion was decreasing, perhaps because the local supervisors lost interest in encouraging farmers to keep on applying those techniques.

From the viewpoint of four small farmers, the project seemed to be incapable of making significant positive changes in the lives of the target group, particularly women who were classified in the category of the most vulnerable people. The project had to improve the soil fertility which required the use of appropriate methods and inputs, but farmers could not afford those inputs as they were costly. However, fourteen farmers replied more positively, stating that there had been achievements but they were entirely destroyed by the war and genocide. a Harvests and livestock had increased, soil acidity and poverty were reduced, farmers got knowledge and skills in farming and in the rearing of domestic animals and their accommodation and nutrition were improved. Other achievements included the development of valley land, growing crop types adapted to the project zone, the use of fertilizers, training for the management of cooperatives and the saving of harvest and money, travelling to see how other cooperatives worked.

One of the GADP employees said: “The GADP used HIMO (labor-intensive policy) for alleviating the poverty in Gikongoro by means of directing a great deal of money towards the area. We can declare that at least 80% of infrastructure came indirectly from the GADP through the circulation of money among the population in the surroundings of the project. Therefore, the beneficiaries of the project were in different categories: farmers, business organizations, leader-managers, etc. The project was so beneficial to the people of Gikongoro province that they need to see a similar project being implemented in the region”. Moreover, another employee of the GADP said: “The project gave the people of Gikongoro so many infrastructures like terraces, stores, and vehicles that they needed another project to help them”.

But from the opinions of some leaders in Gikongoro province and in its districts, the bad management of the GADP had worsened instead of alleviating the poverty in the region. One of the heads of districts said: “Even though during its duration the project recorded some great achievements such as knowledge about developing terraces and running a successful business, the management was not so good and the phase of closeout was bad. This was because the project did not achieve what it had promised to the local people while the funds were still available. As an example, the project promised to give the farmers 500 new cows (of good quality) but the promises were not kept. The situation was very sad as the people had already prepared the pasture (they planted the grass for those animals) and cowsheds. This resulted in great poverty because they had already sold the cows that they owned. The project provided only 150 cows, which were not of the quality as promised. In addition, the cows were given to people living near and known to the project, although they had not prepared for receiving the livestock, that is, they had neither pasture nor cowsheds. As a result, two third of the animals died and the rest were killed for food during the time of war and genocide”.

According to a governor of the Gikongoro province, the situation may be explained by the instability in the leadership of the GADP. This was due to the fact that the acting director led the project for two years in which time the project was not well managed. Despite the improvement in management of the project from 1998 onwards with a new managing director, the duality caused by the fact that the director of the RDAS was at the same time the director of the GADP was a serious problem. This was not solved even after the responsibilities had been clearly separated by appointing two directors, one for the RDAS, and another for the GADP. Concerning infrastructures like terraces, these were built but not used and not kept in working order. The choice of sites was not good. Moreover, cows were distributed hurriedly without preparing the farmers so they would be ready to accommodate the ‘modern’ cows who had good genetic potential. It might have been better if the project had started with the distribution of traditional cows, adapted to the climate, and to proceed with artificial insemination until a new species could be bred that should be only used for milk. If the project had planned all of this carefully, it would certainly have achieved it”.

Another governor of Gikongoro province said: “It is difficult to say anything about the management of the GADP although the project developed the Programs of Potatoes and Wheat, contributed to improving the quality of services, distributed inputs, created new jobs, constructed terraces, trained people about new agricultural techniques, helped the local cooperatives,

developed marshland and organized the people. But it is clear that since the time the project got sponsorship, it built houses and bought vehicles, instead of considering the needs of the rural people. The GADP provided farmers with a certain amount of inputs (fertilizers) as gifts, and they came back for those next time. This is an indication that the management of the project was not good. In addition, the war and genocide of 1994 destroyed the achievements of the infrastructures. Therefore, the period of 1994-1997 was characterized more by the activities of rehabilitation than by those related to the development of the project in all the districts of Gikongoro province”.

Farmers said that they obtained skills in agricultural techniques and business. But (Chapter Six) some farmers failed because of a lack of knowledge of business management. The training in that respect that they received through the GADP was done uniformly in a short time and most farmers had a low level education so that it would have been difficult for them to understand and apply the concepts of management to their business units and cooperatives. Farmers mastered some agricultural techniques to increase the crop harvest but continued to use the traditional ones. The relations of the GADP with its stakeholders were not free from favoritism. The GADP was not fair in distributing developed land, which went to those who already were wealthy, and financial support of the GADP consisted in loans for some farmers and gifts for others. Not only did the GADP not keep promises to provide the farmers with modern cows, but the project also was not fair in the distribution of the small number of cows that it could make available. The situation did not encourage active participation of farmers in the project. Chapter Six argues that the GADP implementation was characterized by poor management of resources because of inadequate planning and weak relationships with its stakeholders, as well as weak leadership. Although the political unrest adversely affected the GADP, all these managerial factors also contributed, in a large measure, to the failure of the project to make significant changes in the lives of the local people of Gikongoro.

#### **8.2.2.2 Bank loans, micro-enterprises and target group**

Micro-enterprises were supposed to significantly contribute to solving the problem of unemployment. That is why the intervention of the Cooperative Banks (CBs) was necessary. According to IFAD (1993), the CBs were judged to be qualified to act as a channel for collecting rural savings and transforming them into loans for the targeted beneficiaries (small farmers) of the project. However, the CBs had little interest in rural development mainly because the beneficiaries did not fulfill the bank loan requirements. Therefore, only a few enterprises

received financial support. As a result, few jobs were created. The project was also challenged by increasing costs of training and by farmers who expected to GET inputs of high quality. To be successful in the sector of micro-enterprises the project should have been visibly engaged in activities of regular monitoring, giving support and training.

People who did benefit from training were found to be those who did not need it because they had already been more privileged than the rest of the local people. The target group (of small farmers, women and young people) did not benefit to a great extent from the financial support (loans) because they did not fulfill the requirements such as having guarantees, a guarantor or any form of security (IFAD, 1993).

In implementing the project, IFAD and World Bank focused on medium and small farming. This was not applied to valley development. In exchange for their work in developing low lying land in the valleys, people got food instead of salaries. In the regions of high altitude, land development of land favored rich farmers. The workers in this area were paid with money that was invested in small projects to generate incomes. Concerning cooperatives, some of them progressed, while others regressed because of embezzlement (IFAD, 1993).

The active participation of local people was also handicapped by political unrest. In fact, multi-political parties and the war in 1990 did not allow people to respond to the project's attempts towards securing sustainability of the project. Even if the concerns of the GADP were centered on rural development, some categories of people were not significantly affected by the project. The project did for example not make noticeable changes in the well being of women. Redefining its beneficiaries was one of the priorities of the project in order to achieve sustainable development and increase the number of stakeholders (Bgyonb and GADP, 1993).

From Chapter Five, it appears that inadequate planning was among the critical factors for GADP failure. Farmers needed training about new agricultural techniques and business management skills. This was because they wanted to increase their agricultural productivity, crop harvests and income, and run successful business and cooperatives. However, training was provided unfairly and for too short a time. As a result the beneficiaries did not benefit much from the training. Corruption and favoritism within the GADP was apparent in its distribution of financial support and land. The project did not play its role of educator for the benefit of the farmers. The project familiarized farmers with free gifts and when they were stopped, the farmers showed a lack of interest in the project. Beneficiaries were not well identified, and that is why redefinition of

beneficiaries was found necessary even though it was not done. As a result, women were not adequately integrated in the project whereas they were among the poorest beneficiaries of the project and fulfilled important economic and social roles as farmers and as heads of households.

Areas of poor planning included the poor definition of project objectives, activities and resources. During implementation, the project was marked by inadequate relations with stakeholders. The result of this problem was delays, poor management of resources, and little participation of stakeholders. Evaluation reports available through surveys indicate the areas that needed improvement, but it seemed that this information was not taken into consideration in decision-making and problem-solving. Therefore, it is not surprising that the project did not make significant positive impacts on the lives of the main beneficiaries that included small farmers, particularly women and young people.

### **8.2.3 Weaknesses in summative evaluation by the GADP**

The impact of evaluation in the GADP was weak. This can be explained by the hurried closeout and poor documentation. The quick termination of the GDAP did not allow for the collection of information from people about changes that the project might have affected in their lives. The joint commission that was appointed to evaluate the GADP from 1990 to 2001 was expected to produce a document that would provide detailed historical data on the way the project was planned, implemented, evaluated, and terminated. However, this document which was important for many of the GADP stakeholders along with potential researchers, could not be found anywhere in the GADP documentation. Dispersed information related to the GADP planning, management, implementation, evaluation, and closeout was found only in some documents of IFAD (1993), IFAD et al. (1993), Bguyonb and GADP (1993) and GADP (2001) while the project recorded 137 documents of evaluation (monitoring) from 1990 to 2001. These weaknesses were explained by the fact that the project kept the information to itself and it was shared only by the head office of the GADP and the accounting division. Copies of these documents should have been made and distributed to the different parties concerned. But the poor relations of the GADP with its stakeholders, the lack of transparency in communication and poor planning did not allow for this to happen. This made effective impact evaluation practically impossible. Thus, summative evaluation conducted by the GADP was not a success.

### 8.3 ASSESSMENT OF THE OVERALL PERFORMANCE OF THE GADP

This section presents an evaluation of the performance of the project departments with reference to GADP reports prepared by the Department of Follow-up and Evaluation. In section 5.3 (performance indicators), it is indicated how powerful and useful performance indicators are for planning and enhancing the quality of project management. The section also discusses the overall performance of the GADP by means of indicators which are based on the criteria of relevance, coherence, implementation efficiency, effects and impacts, and overall cost-effectiveness of the GADP.

#### 8.3.1 Performance of the project departments

This point is mostly concerned with the qualitative evaluation of the organization and management, resources management and partnership relations, as indicated in Table 8-3 below:

**Table 8-3: Performance of the project departments**

Department	Quotation	Remarks
Head office	Very good	Good organization and project management in spite of some problems of management at the beginning of the activities in 1996/1997, which would bring about the change of some of project managers in 1998.
Administration	Very good	Good organization and project management in spite of some problems of management at the beginning of the activities in 1996/1997, which would bring about the change of some of project managers in 1998.
Vegetal production	Very good	Partial utilization of bad quality seeds, but this would not be attributable to the department because the research activities were not completely operational due to the tragic events of 1994.
Animal production	Very good	Some delays in animal resettlement program due to the long procedures in accessing the markets.
Forestry	Very good	Efforts in producing fruit and agro-forestry plants by providing seeds, sachets, and sprinklers. The difference observed in the production would be attributable to a low participation rate of the local population.
Rural engineering	Very good	Remarkable improvements in carrying activities mainly during the last two years 1999/2000 due to the availability of a technically competent manager compared to the situation of 1997/1998 (effective restart of the project).
Organizational structure support	Very good	Availability of network of different stakeholders.

Source: GADP (2001).

Table 8-3 labels the performance of every GADP department as “very good”. This is not surprising, because the evaluation was done by the department (employees) of the project. Although internal evaluation was important, the quality of evaluators was doubtful because of their low level of professional knowledge and skills in project management and evaluation, and



probable fear of getting into conflict with senior managers and the project leader. In addition, the project was characterized by a lack of transparency. Often the Department of Follow-up and Evaluation shared information from evaluation reports with two departments (head office, and accounting) only.

It is hard to understand how they would have been able to appreciate the quality of organizational structure and other technical issues which one would expect to be beyond their level of knowledge. One would imagine that this problem could have led them to appreciate the GADP and its departments as well-performing organizations, and to qualify organization and management as ‘very good’ but perhaps with a few problems of management. Unfortunately, no such problems were singled out for corrective actions. With reference to the process of data analysis for the current study, the GADP had many problems in relation to its organizational structure, resource management, communication, and partnerships. Stating that things were ‘very good’ in all departments amounts to misleading the project.

The head office department was labeled a well-performing department. However, section 6.1.3 (the GADP leadership) describes the leadership’s weakness resulting from the inadequate structure of the project and the political motivations behind the frequent changes in leadership, mostly during the period of 1990 to 1994. The problem of non-transparency in communication, poor partnership relations of the project and the very limited participation of stakeholders in the project were the main indicators for the weakness of the GADP leadership. The Department of Finance and Administration experienced serious problems in the area of human resource management. The project employed in the management areas (management, accounting and evaluation) people with a limited educational background and from fields other than management. Cases of embezzlement of financial funds in that department were also reported. The lack of annual balance sheets and cash flow indicates weaknesses in financial management. This was due to the lack of competent employees (section 7.3.3 of financial resource management). The balance sheet could have helped to assess the annual situation of assets such as funds, vehicles, buildings, forests, terraces and short and long-term liabilities. A monthly cash flow statement could have been used to forecast the project’s financial needs and the availability of a source of money to cover them. Besides the withdrawal of project sponsors, these financial weaknesses hampered the execution of project activities (training and land development).

The department of vegetal production worked for only one year. The farmers were familiar with free inputs (fertilizers and seeds) and lost interest when the department stopped these. That is why some farmers recommended that future projects would not make the same mistake as gifts (instead of loans) do not encourage farmers to be entrepreneurs.

The department of animal production was ineffective in that it didn't keep promises to give the farmers modern cattle. For some farmers the department did nothing. To others it gave pigs instead of cattle. The department of forestry failed to accomplish its tasks. Forests were planted, but they were not maintained and protected. People cut them down and no measures were taken to stop the destruction which led to soil degradation and erosion, which in turn had negative impacts on the weather, the crop harvest and the income of the community of Gikongoro.

The Department of Rural Engineering, which had to construct roads and storerooms, did not plan them adequately, because no responsibility for their maintenance and protection was established. Roads, of which only 12% was constructed, were abandoned because neither the local government authorities nor the GADP accepted responsibility for them and storerooms were found to be too many for the decreasing inputs and crop production.

The Department of Organizational Structure and Support was in charge of activities such as training and popularization through cooperatives. Section 7.3.5.6 (GADP and training centers) indicates how the project failed by providing training that was poorly planned and arbitrary (favoritism). Farmers were disappointed in their expectations that they would get knowledge and skills as regards new agricultural techniques, business and cooperative management, so that they would be able to increase their crop harvest and run successful business units.

The Department of Follow-up and Evaluation was not mentioned amongst the GADP departments (Table 8-5) that were targeted by performance evaluation which implies that little importance was given to this department that, from the beginning, had never been integrated in the GADP objectives. The project implementation was negatively influenced by poor evaluation, evident in a lack of planning for the selection of evaluators, the choice of methodology used for data collection, and the dissemination of information from surveys.

For these reasons, it can be argued that the evaluation done in 2001 by the department of Follow-up and Evaluation for the overall performance of the GADP departments over the period 1990-2001 was subjective. How this evaluation, which was done at the end of the project, could

conclude that the performances of departments had been “very good” when they failed to accomplish duties in relation to the project objectives, defies understanding.

### **8.3.2 Performance criteria for the overall assessment of the GADP**

Because of lack of structured performance and impact indicators (quantitative and qualitative) from the GADP documents, it is difficult to measure the extent to which the project achieved its objectives and impacts. However, the information that the researcher got from some GADP documents and field research by means of direct observation and interviews, helped to paint a picture of the project’s organizational environment, design, planning, implementation (management and evaluation) and closeout. This picture has been presented in Chapters Five to Seven. The information helped the researcher to structure an overall assessment of the project in terms of its relevance, coherence, efficiency, effects and impacts, effectiveness and cost-effectiveness throughout its life cycle as indicated in Table 8-4.

**Table 8-4: Synthetic assessment of the GADP**

Criteria	Assessment
<b>Project relevance</b>	<ul style="list-style-type: none"> <li>• <b>Food security concerns:</b> The positioning of the project in Gikongoro Province was appropriate. This is because Gikongoro is a poor region, with high population density, and rapid growth of population, acidic and infertile land, and erosion. In dealing properly with these issues, the GADP would have contributed a lot to poverty alleviation and the well-being of the local population. However, this did not happen because of political unrest (war and genocide), poor management of resources, poor relations of the GADP with its stakeholders and the lack of the real meaning and integration of evaluation in the GADP management from the beginning to the end of the project.</li> <li>• <b>Sustainable agriculture:</b> Local small farmers benefited from new agricultural techniques. It was a good thing. Unfortunately, farmers did not adopt them in practice and remained tied to their traditional agricultural methods. In addition, the GADP promoted the development of food crops (sweet potatoes, beans), market crops (potatoes, and wheat), and export crops (coffee). But the food crops did not cover the needs of local people, and the lack of markets was noticed for local market and export crops. The project failed in improving the nutritional and welfare of local people.</li> <li>• <b>Rural development:</b> Stores for cooperatives of small farmers were built, roads constructed, and forestry activities developed. But some time later, these infrastructures deteriorated because of a lack of maintenance. The local people did not feel responsible for maintenance and were not concerned with the ownership of those infrastructures. The GADP tried to develop micro-enterprises, but only few small enterprises were funded. The project initiated the development of banking system in Gikongoro. But farmers did benefit much from it because of poor relations between the GADP and the cooperative banks and because some farmers had bad reputation of not paying back loans they had got from the GADP and the previous project PIA.</li> </ul>
<b>Coherence of the project</b>	<ul style="list-style-type: none"> <li>• <b>Clear definition of objectives:</b> The objectives were vague, because of the many components of the project. The GADP was not able to set priorities of activities to be carried out and identify key stakeholders, as well as their roles and responsibilities in the project. Therefore, this situation affected the planning of the project.</li> <li>• <b>Clear definition of effects and impacts:</b> If the project failed in setting clear objectives and priorities, and identifying key stakeholders, it is understandable that the effects and impacts were not clearly defined and objectively evaluated.</li> <li>• <b>Realism and feasibility:</b> The project was not realistic given that it was too complex to carry out many of the components, which were mutually exclusive. Those components were research and development, professional training, extension of agriculture and support activities (including seed production, agro-forestry plant production, and livestock production), loan for agriculture, valley bottom and upland development, road rehabilitation and construction, construction of storerooms, and the promotion of micro and small enterprises. The organizational structure of the GADP was also an obstacle to attain its objectives. The project found itself doing the same thing as the Regional Direction of Agricultural services (RDAS) in Gikongoro.</li> </ul>

Criteria	Assessment
<b>Coherence of the project (followed)</b>	<p>The GADP and the RDAS were under the direct supervision of MINAGRI. The RDAS was an agency of MINAGRI, which represented the government in Gikongoro concerning agricultural activities. There was a lack of autonomy in carrying out activities, as the project was not decentralized. The coordination and collaboration of both units was difficult to achieve because they were competing with one another. Project integration was not achieved in consideration of the following.</p> <ul style="list-style-type: none"> <li>• <b>Usefulness of outputs planned:</b> <ul style="list-style-type: none"> <li>➢ Development of land (hilly and valley bottom land);</li> <li>➢ Food (wheat, potatoes, sweet potatoes, beans, milk and meat);</li> <li>➢ Availability of a market for commercial crops (wheat, potatoes, and coffee);</li> <li>➢ Building of economic infrastructures (roads, and hangars for stores),</li> <li>➢ Environmental infrastructures (landscaping, reforestation, ditches, terraces, plantation of fruit trees around homes and alongside the arable land).</li> </ul> </li> </ul> <p>These outputs are useful for rural development. However, there was a lack of involvement of beneficiaries in their maintenance. As a result, the land which was developed was later abandoned, roads and stores together with forests deteriorated. Even if vulgarization activity was done, people (beneficiaries) did not understand their responsibility in the management and ownership of these outputs. That is why their cooperation with the project was weak. In the worse cases, they immediately abandoned the infrastructures when asked to give a financial contribution towards their continued existence.</p> <ul style="list-style-type: none"> <li>• <b>Adequacy of strategic perspective:</b> The GADP wanted to see the results in the short term while the project was set for a long term period. As a result, there was a lack of resources (people, money, materials) and the implementation was made difficult. In the planning of the project, the hand over was not put into consideration for its sustainability.</li> </ul>
<b>Implementation efficiency</b>	<ul style="list-style-type: none"> <li>• <b>Degree of achieving targeted outputs:</b> When looking again at the performance indicators (Table 5-1), the project achieved many outputs. The problem was the management of those outputs. Stores were found to be too many for the cooperatives of small farmers. So, they were not used efficiently. The land which was developed was later abandoned. Roads and forests were deteriorated because no one was effectively responsible for their maintenance. In addition, food and market crops declined because of the diminution of inputs provided by the GADP. For market crops, the size of markets decreased. The reports were produced timeously, but the problem was communicating them to the users of that information. In the same way, the participatory approach failed in that there was a lack of communication and collaboration between various key stakeholders of the GADP. The project lost the synergy and integration of planning, executing and control of long-term objectives. The consequence was the GADP poor management and waste of resources.</li> <li>• <b>Coordination of the project:</b> The GADP coordination referred to the way it was planned and managed. From Chapter Five to Chapter Seven, it was revealed that the GADP was not adequately planned because of unclear identification of its stakeholders, vague definition of its objectives and activities, and underestimation of the project duration and resources. Even though the planning was not good but relevant planning documents should have been available. This was not the case. During the implementation phase, the problems of insufficient resources, inadequate relationships of the GADP with its stakeholders, lack of interest and participation of some stakeholders in the GADP (farmers) as a result of poor relations with the project were reported as the main obstacles to the GADP success. These elements were not well integrated in the planning of the GADP. For this reason, it was difficult to know where the project was, where it was supposed to be and where it was going to. In other words, it was difficult to make comparison between the plans and the implementation achievements in order to take corrective actions in time. As a result, the case of delays, embezzlement, inefficient use of resources and infrastructures developed by the GADP were reported. In addition, evaluation (monitoring) produced many reports that could have illuminated the project about the necessary improvements that were needed in the GADP management but they were not used, and later most of these documents could not be found. The situation became worse when the available information was shared only by the head office and the accounting division. This should not be the case because other stakeholders needed that information to know what the project was doing and the problems that it was encountering. Through meetings or other way of communication the problems (conflicting interests, delays, lack of resources, poor relations and communication, etc) should have been solved in the right time. However, the non-transparency and poor communication did not permit it to happen.</li> </ul>

Criteria	Assessment
<b>Effects and impacts</b>	<ul style="list-style-type: none"> <li>• <b>Direct effects and impacts.</b> The immediate prospects were satisfactory: availability of roads, stores, forests, land developed and distributed to the farmers, environment protection against erosion, increase of food and market crops. However, women and young people who were considered as an integral part of the target group remained unaffected by the project. The livestock was not given particular attention, whereas it was stated that the activity would contribute to increasing milk and meat and enhancing the nutritional status.</li> <li>• <b>Likely sustainability:</b> The achievements of the project in providing economic, and environmental infrastructures, as well as increasing farming production did not last for a long time because of a lack of involvement and ownership of different stakeholders, especially farmers. The problems of small incomes, unemployment and erosion recurred and were not solved.</li> <li>• <b>Contribution</b> to Gikongoro province's priority areas (food security, environment conservation, development of arable land, livestock, etc): The project only made a small contribution to meeting these needs. Many efforts were made, and many achievements realized, but they did not last for long time for the reasons mentioned above.</li> </ul>
<b>Overall cost-effectiveness</b>	<p><b>Costs and benefits in terms of money:</b> The project was too big with reference to its components. To achieve the outputs stated above, there was a need of different inputs.</p> <p>Those inputs were namely:</p> <ul style="list-style-type: none"> <li>• Management skills: high qualifications, experience, and knowledge of management staff (senior, middle and first line management) would be a high priority.</li> <li>• Human resources planning: The project had a problem in planning human resources. At the beginning, the project had 314 employees. Only 3 years later, the number had been reduced to 89 employees who needed further training.</li> <li>• Financial resources: the size of the project required the intervention of various sponsors (Rwandan government, IFAD, World Bank, FAO, PNUD, World Food Program, etc). The progressive withdrawal of international sponsors hindered the progress of the project. This is because the project was not able to cover the financial needs for the achievement of its objectives itself and did not get substantial contribution from beneficiaries.</li> <li>• Equipment resources: office buildings, vehicles (25 vehicles of which 11 were lorries), computers, telephones, etc were needed.</li> <li>• Arable and forestry land: hilly land and valley bottomlands were to be developed and distributed to small farmers.</li> <li>• Fertilizers: They were bought and distributed to the cooperatives of farmers.</li> <li>• Seeds: They were multiplied by the project and distributed to the cooperatives.</li> <li>• Fruit and forest trees were produced and distributed to the cooperatives.</li> </ul>

Criteria	Assessment
<b>Overall cost-effectiveness (followed)</b>	<p>Cost-effectiveness is judged by comparing the project costs with its benefits. The financial costs of the GADP included for instance, costs for various inputs, salaries for all the project employees and project office costs (investments, water, stationary, telephone, guards, office equipment, insurance, bank fees, electricity, transport, taxes, maintenance and repair of fixed assets, etc). Although the GADP was not a profit organization, it would earn some income from activities such as selling inputs, which were gifts at the beginning but later sold to the farmers. These elements would be recorded in the accounting books and could be used to generate the information that was needed to establish the financial statements such as budget (forecasted income and costs), cash flow (inflows and outflows of money) and balance sheet (assets and liabilities), and profit and loss account. The cost-effectiveness analysis requires comparing the financial costs and incomes by means of economic criteria such as Net Present Value (NPV), Return on Investment (ROI) and Internal Rate of Return (IRR) to see if the financial benefits which are expected from the project cover financial costs of the project. In other words, the results of the analysis lead to conclude if the project is profitable or not. This task should have been done by the feasibility study team of the GDAP. The GADP accountants were not able to adequately establish those statements and do such an analysis because they were not trained and qualified in the accounting and management field. In addition, most financial figures were not available to do such an analysis. Therefore, it would be difficult for the GADP Finance Department or someone else to do that cost-effectiveness analysis. Although the main objectives of the GADP was not to gain profit as businesses do, that analysis could have been very important for the financial management to know the source of financial resources, their use and cash flow timing, and justify how they were used through adequate accounting book keeping and control.</p> <p>In addition, the GADP was a development project. The cost-effectiveness could be extended to the analysis of social and environmental benefits. People needed to see their quality of life changed. They expected to get the good quality of inputs (fertilizers and seeds), protect their land against erosion and make it fertile. This could have contributed to increase their crop and animal production and income to solve the problem of malnutrition (source of many diseases and deaths) and unemployment. The development of the community of Gikongoro would mean having a high level of lifestyle (better education, health, accommodation, health, etc). However, these outcomes were not achieved because they were not planned as a result of not integrating farmers in all the processes of planning and implementation of the project, where their real needs would have been clearly expressed. Therefore, the project spent resources (money, time and energy) for the things that were not sustainable. Roads, terraces, storerooms were built but are not efficiently used. Others were abandoned. Forests were planted and destroyed later by people. These infrastructures were costly but the financial, economic, social and environmental benefits were less than expected benefits. Compared to its costs, the value of the GADP in the region of Gikongoro was not significantly perceived. The lesson is that a sustainable project is the one that involves all stakeholders throughout its life cycle and make them more participative and motivated through building good and strong relations with them through effective communication. It is in this way that they can see their livelihoods significantly improved.</p>

## 8.4 CHAPTER SUMMARY

This chapter discusses the way in which the GADP was evaluated and how the evaluation findings were used. Effects and impacts are also considered. The GADP used in the process of monitoring evaluation some participants such as MINAGRI, the GADP employees, local authorities and farmers. The methods used for the data collection included specifically field visits, documentation and surveys. However, some stakeholders and the GADP environment and leadership were absent in the evaluation. This diminished the quality of the evaluation results. The findings revealed that some management areas needed improvements but the information was evidently not heeded because no remarkable consequent improvement was achieved in the GADP management. Although the quality and the number of internal evaluators were judged to be inadequate, the documents that they did produce, together with those from external evaluators could still have been of great value to meet the needs of the GADP stakeholders, particularly the group of farmers. As a result, it was argued that the formative and summative evaluation were not effective in the GADP. The formative evaluation that should have started in the early stages of the project only began during the project implementation. It was supposed to provide information on the GADP progress and how improvements should be done. But no significant changes were observed. The summative evaluation which should have provided historical data on the GADP (genesis, planning, implementation and closeout) was incomplete so that no lessons could be drawn for the benefit of new projects. Much information could have come from the reports of the formative evaluation.

The conclusion is that the evaluation (formative and summative) conducted by the GADP was inadequate as it did not meet the requirements of sound evaluation. This was because from the beginning to the end of the project evaluation had not been valued and given its correct place in GADP management. Hence, for success and sustainability, a project needs to consider evaluation and management as interdependent and inseparable, and to promote good leadership, and the use of environment and stakeholder analysis in all its processes of project management and evaluation from the beginning to the end of the project. For this reason, the researcher of the current research suggested that the project management and evaluation should take the form of the model presented in Figure 8-2.





and needs of the project stakeholders. Readjustments are made and plans pursue the process of planning and implementation until the end of project. The indicators can also indicate if readjustments are needed at the implementation level without going through all the processes of re-planning and implementation. The different forms of evaluation (proactive, clarificative, interactive, monitoring and impact evaluation) listed in Chapter Four can be used and distributed over the phases of the project life cycle, each evaluation in its right phase depending on the purposes of the evaluation and the perspectives of the project stakeholders. At the end of the project, evaluation is done to check whether it has achieved its objectives and met the stakeholders' needs. The results of the final evaluation constitute not only the full history of the project including lessons learnt during its lifetime, but also a database for new projects. These data are very important for their initiation phase when they consider the new project's financial, social, economic and environmental feasibility.

The model cannot be successfully applied if the project leadership is neglected. The leadership in the project is one of the critical factors for success. It shows the direction that the project should follow and it motivates people to the right things in efficient, effective, collaborative, communicative and participatory ways. It has a significant influence in the processes of project management, particularly in the planning processes although it plays important roles in the phase of the project implementation.

The model suggests that the project should be understood as a system. It is influenced by interaction and interconnectedness of internal and external environmental factors. The influences may be positive or negative. Positive influences are perceived as external opportunities or internal strengths and negative influences as external threats or internal weaknesses. These influences are to be integrated in the processes of the project planning and implementation. In the project planning, positive influences can be used to estimate the benefits of the project and negative influences can be avoided or mitigated to prevent failures, and measures can be taken according. During the project implementation, positive and negative influences are continually reassessed to check whether the situation is getting better or worse. Measures are also reassessed to adapt potential changes to the project environment and stakeholders' needs. This process continues until the project closes. The model considers that separate evaluation can be conducted both by internal and external evaluators of the project. Evaluation can also be jointly done by a team of internal and external evaluators. The choice of either can be made depending on the purposes and the perspectives of the project stakeholders. It is very important from the beginning

to the end that the project considers leadership, evaluation, management, environment assessment and stakeholder relationships as inseparable and complementary elements that have to go and work together throughout the life cycle of the project to predict its success and sustainability.

Chapters Six to Eight cover the GDAP's life span, its genesis, implementation and closeout. The main points developed were particularly concerned with managerial aspects that involve planning, management of resources and partnership. Participatory development and evaluation were also considered without forgetting the influence that the surrounding environment exerted on the GADP. Chapter Nine presents general conclusions and some recommendations.

## **CHAPTER NINE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

This part of work presents the chain of main ideas of the work succinctly and logically, and suggests some recommendations that would be useful for ongoing and future projects operating in Rwanda and for other potential users of this document.

### **9.1 SUMMARY**

The Gikongoro Agricultural Development Project (GADP) was implemented in the southern Rwanda in 1990 and terminated in 2001. The target group consisted of 42,000 farm families, and women and young people were especially targeted. The project aimed at improving living conditions: increase of incomes, enhancement of nutritional status and employment generation. Therefore, the focus of the GADP objectives was on land development, increase of farming crops, environment conservation and protection, stores and roads construction, and bank loans for small farmers. The achievement of those objectives required an estimated total budget of US\$ 31.2 million. The budget of the project did not seem to be a crucial problem as it had strong financial sponsorship from international organizations like the World Bank, Food and Agriculture Organisation, International Fund for Agricultural Development, PNUD, and World Food Program. In addition, the GADP benefited from previous projects' economic infrastructures in the agricultural sector in Gikongoro province. These projects were concerned with activities of reforestation and soil conservation, training for farmers, and intensification of agriculture particularly for potatoes and wheat. The GADP failed although it had good opportunities to make the project into a success. Accordingly, the research questions and objectives were identified as listed in Chapter One.

The literature was reviewed and dwelt on the concepts of project management and evaluation as well as project management environment in developing countries, and specifically in Rwanda. Summative evaluation was used to assess the implementation of the GADP and the impacts of the project on the beneficiaries, specifically small farmers including a great proportion of women and young people. Interviews, direct observation and systems thinking were used for data collection. The research findings revealed that the GADP failed for many reasons. The poor environment analysis led to a weak feasibility study and poor planning of resources, activities and partnership relationships. During the implementation, the GADP was not able to manage its

resources because of inadequate leadership and poor communication and relationships among its stakeholders. This resulted in conflicts among the GADP stakeholders and delays and budget overruns. The lack of systems thinking did not allow for the establishment of relationships between all these elements. Therefore, there was a lack of harmonization between management and evaluation. This problem adversely affected the GADP management. Although evaluation was not adequate it revealed areas that needed improvement. However, the information was not heeded in decision-making. The civil war of 1990 and the genocide of 1994 had a negative impact on the GADP because they swept away many resources such as employees and office equipment although poor planning contributed to the insufficiency of resources. As a result, some components such as training, land and terraces development, and distribution of free inputs were stopped because of lack of resources. The tragic events in Rwanda led people to cut down the forests which the GADP had planted. The trees were used to as firewood and for income. The phenomenon of deforestation contributed to the changes of weather (regular droughts) and therefore severe famines, which killed many people and increased poverty in Gikongoro.

An overall assessment indicates that the GADP was not effective, as it did not achieve its objectives. It was not efficient in using available resources. The impacts of the project were not significant within the target groups, specifically women and young people. In addition, the project was not coherent, as it was poorly defined and planned, and appeared to be too complex to carry out all its activities. It was not relevant because it was not able to meet the needs of the beneficiaries. In this regard, the project experienced difficulties in clearly defining the real stakeholders, objectives, effects and impacts, and failed to attract the involvement of the beneficiaries. Most of the GADP stakeholders did not take responsibility for the sustainability of the project's achievements into their own hands, although they were its co-owners and the project had been implemented for their benefit.

## **9.2 CONCLUSION**

### **9.2.1 Answers to the research questions and achievement of the research objectives**

Considering the importance of the GADP sponsorship, budget, geographic area coverage, cornerstone of previous projects, targeted people and expected outcomes of the project, the researcher wanted to know the reason why the project failed to achieve its objectives and the anticipated positive outcomes in the region of Gikongoro. That is why, in Chapter One, the research questions arose, linking the GADP failure to the possibility of inadequate processes of

management and evaluation, environmental factors and lack of the use of participatory development approach. The research questions thus were directed towards the main causes of the failure, actions to be taken, and lessons that could be drawn from the study for the benefit of ongoing and new projects. The research questions were answered as the research progressed.

#### **9.2.1.1 The first research question**

The answer to the first question “How and to what degree did inadequate processes of management and evaluation contribute to the GADP failure?” was found in Chapters Two (Project management principles), Four (Project evaluation principles), Six (Presentation of the case study of the GADP), and Eight (Assessment of the GADP evaluation). In Chapters Two and Three, the literature indicated that projects failed because of poor management, which was characterized by various factors such as poor planning, inadequacy of information and communication, losing control of project, of information and communication, lack of integration of project life cycle and risk management in the project management systems and poor leadership.

Chapter Two indicated that poor planning was due to the lack of clarity for project definition and inadequate scheduling and resource allocation, while inadequacy of information and communication was caused by the lack of communication facilities (Internet) and the lack of the flow of information that the project stakeholders needed throughout the project life cycle for project control. The lack of project control did not allow taking corrective action at the right time and resulted in delays to complete the project activities. Assuming that projects are planned and implemented in stable environments was a big mistake that caused a great number of project failures, because little attention to instability and uncertainties of the project environments did not allow project managers to objectively assess project risks, make contingency plans and manage projects systemically.

Furthermore, the project life cycle was not taken seriously in project management, while it is one of the critical success factors, because each phase of the project life has its own tasks and requirements, which become important inputs for the following phase. The lack of attention to this factor led to poor project planning and implementation, inadequate communication and coordination among stakeholders, and lack of project control. The autocratic leadership

characterized by intimidating employees in many projects, and by the lack of strategic orientation, led to the project inefficiency and ineffectiveness.

Chapter Four highlighted that evaluation was overlooked in project management and was one of the most important critical factors of project success. Evaluation would take place throughout the project life cycle using various evaluation forms and approaches. The purpose of evaluation would be to achieve the project objectives and meet the needs of stakeholders.

In the GADP, the results from Chapter Six to Eight indicated that the failure was due to the lack of poor planning, which was marked by the inadequacy of project definition (unclear objectives, underestimation of resources, overestimation of activities, and duration and poor structuring of performance indicators). The failure continued with the implementation phase where resources were not managed efficiently. In fact, employees were not allocated in their right positions in addition to their low levels of qualifications. Because of poor planning, physical infrastructures such as roads and storerooms were not used in an efficient way. For instance, roads deteriorated because of the lack of responsibility for maintenance, and storerooms were too many for keeping the harvest. Delays in performing the project activities manifested because of poor management of contracts and partnerships among stakeholders and with the project. There was also a lack of financial resources due to a systematic withdrawal of sponsors, because war and genocide, embezzlement, and poor quality of financial management. In addition, the problem of evaluation indicated in the literature (Chapter Four) appeared in the GADP. There was a lack of harmonization between management and evaluation. This did not allow taking corrective actions at the right time and meeting the real needs of its stakeholders, particularly the farmers who were the main beneficiaries of the project. The project suffered from a lack of internal evaluators in quality and quantity. Surveys were conducted but the findings were not shared among different users.

The literature review and the findings from the current study confirmed that the first question has been answered. The first objective “To assess how the GADP was implemented (the processes of the GADP management and evaluation) and its impacts on small farmers that were judged to be the main beneficiaries” has been achieved.

### **9.2.1.2 The second research question**

The answer to the second question “How and to what degree did external environmental events prevent the GADP from achieving its objectives” was found particularly in Chapter Three (The failure of development projects) and Chapter Six. Chapter Three indicated that project failures, particularly in development projects, were due to many factors. State-owned projects were characterized by the lack of economic and social infrastructures, corruption and the lack of autonomy and transparency in decision-making. The lack of responsibility and accountability and of exchange of information among stakeholders, along with insufficient markets, led to poor quality of products and services. In agricultural projects, failures were located in physical environmental conditions such as weather and ecology. But other contributing factors included political, economic, cultural, technological changes.

For the case of the GADP, the results confirmed the information from the literature and indicated that the failure was due to the turbulent environment (Chapter Six). The project was torn down by the effects of the civil war of 19990 and genocide of 1994. In addition to the lack of social and economic infrastructures, demographic, economic, climate and ecological changes adversely affected its productivity and sustainability.

This information leads to the conclusion that the second research question has been answered. Therefore, the second research objective “To assess how environmental events affected the achievement of the objectives of the GADP” has been achieved.

### **9.2.1.3 The third research question**

The third research question “How was the participatory development approach (Participatory Action Research) used by the GADP in the process of learning” was covered in Chapter Three and Chapter Seven. Chapter Three showed that the project success or failure depends on how participatory projects were. That is why, for instance, some Indian projects were successful because of the effective participation of stakeholders, especially women. However, in Lesotho and Kenya, some projects failed because stakeholders were not involved and did not participate actively in those projects. For the case of the GADP, Chapter Seven (section 7.3.6 Participatory development approach) indicated that the project failed because of lack of cooperation among the project stakeholders. Women were not well integrated in the project. When conflicting situations arose within the project, the process of decision-making was not effective to solve



them adequately. The GADP was also marked by poor communication. All these factors were an indication that the project did not use participatory development approach even though it was mentioned in its documents. The fact that the stakeholders were not fully involved in the project throughout its life cycle did not allow them identifying their real needs and actively participating in the project. This contributed to a great extent to the project failure.

Therefore, it can be argued that the third research question has been answered and the third research objective “To assess how the participatory development approach (Participatory Action Research) was applied by the GADP in the learning process during the phase of its implementation” has been achieved.

#### **9.2.1.4 The fourth research question**

The fourth research question “What were the main causes that led the GADP to fail and how did they affect the project?” was answered throughout the literature review, particularly in Chapters Two, Three and Four, where the main causes of the project failure were located in a poor project feasibility study, and planning and partnership among project stakeholders. Poor leadership, inadequate environmental analysis, a lack of integration of systems thinking in the project management systems, were also included as the main causes of project failures. This information was confirmed by the results from the current study, especially in Chapter Eight. In fact, the weak feasibility study of the GADP led to poor planning (definition of objectives, activities and resources) and implementation (inadequate communication and coordination, poor quality of managing partnerships and lack of project control) handicapped the achievement of the project objectives. The GADP was not able to manage its stakeholders, not only because of weak leadership, but also because of a lack of systems thinking in its management systems. The systemic approach would have helped to identify interdependent relationships between its stakeholders and determine realistically their roles, needs, expectations and interests in the project. The failure at this level affected the rest of the project phases (planning, implementation, control and closeout).

With this information, it can be argued that the fourth research question has been answered and the fourth research objective “To identify the main causes that made the project unsuccessful” has been achieved.

#### **9.2.1.5 The fifth research question**

The fifth research question “What could be done and what lessons could be drawn from this experience for the benefit of ongoing and future projects operating in Rwanda?” was answered in Chapter Nine, particularly in section 9.2.3 (Learning experience from the case study of the GADP) and in section 9.3.1 (Introduction of systems thinking as a course in the Rwandan higher educational programs) and in section 9.3.2 (Promotion and development of strong partnership between social and economic actors). The lesson learnt from the experience of the GADP was that projects should be planned and implemented in a systemic way, where hard and soft elements have to be valued for an appropriate environment and stakeholder analysis, which contributes to suitable project planning efficient implementation and effective closeout. It was suggested that building strong partnerships between the educational sector and the private sector may allow using systems thinking to improve the managerial performance of Rwandan business organizations and non-profit organizations as well.

#### **9.2.2 Importance of the study**

##### **9.2.2.1 Implications of the study on the theoretical and practical knowledge of the researcher**

This study was not done in a vacuum. It had its origin in the Masters programme in Strategic Project Leadership and Management at the Leadership Centre, University of KwaZulu-Natal. The first idea for conducting this research occurred in the academic year 2004, shortly after the Project and Program Evaluation course. After the completion of his Masters degree, the researcher went back home to continue his job of teaching at the National University of Rwanda. But besides fulfilling his academic duties, he kept thinking about what he could do for rural people struggling with increasing unemployment and poverty. Because the main source of income of the rural people is agriculture, he already had in mind a study, oriented towards agricultural projects implemented in rural areas. The main objectives were assessing the reasons that might explain the failure of such projects so that solutions could be found to help existing and future projects to succeed. Therefore, the GADP was selected. The choice was motivated by the fact that the project was big and covered almost the whole of Gikongoro province and that it aimed to solve the problems of unemployment, the small incomes of farmers, and malnutrition.

Another reason for the choice of subject was found in the fact that the GADP had benefited from previous projects' economic infrastructures and organizational structures, and from the sponsorship of the Rwandan government and big international organizations like the World Bank, the International Fund for Agricultural Development, FAO, PNUD, the World Food Program, and so on.

It was difficult to understand that a project of such great value for the country in general, and for Gikongoro in particular, and which benefited from considerable financial opportunities, could have failed. That is how the current study began. Academics of the Leadership Centre assisted the researcher in formulating his PhD research proposal.

The purpose of the study was to assess the causes of the failure of the GADP. The research questions and objectives were linked to questions of management and evaluation, environmental factors and participatory development. The researcher reviewed the literature on these matters. The literature indicates that projects fail because of poor definition of the project, an inadequate activity schedule and resource allocation, poor communication of information, lack of project control, lack of integrating risk management in management systems and ineffective management and leadership. For public projects, the reasons for failures included also the inefficiency of governments due to bureaucratic systems and command-and-control management. In the agricultural sector, the failures added physical environmental factors. Other factors involved cultural, social, economic, political, technological, demographic and climatic factors. As the GADP was both a government and a development project whose implementation was influenced by these various environmental factors, the appropriate literature was selected (Chapter Two) to cover managerial and environmental issues and to identify the reasons for project failures. Project failures were also associated with inadequate evaluation. In some cases, evaluation was done without considering different perspectives of stakeholders or without involving environmental factors. In other cases, evaluation was done independently of management. Therefore, different evaluation purposes, processes, forms and approaches were provided in the literature (Chapter Three) to guide evaluators in order to make evaluation useful for different stakeholders of projects.

However, in their attempt to explain the causes of project failures, different researchers had different perspectives. Some researchers focused on internal environment (management), others on physical environmental factors, and others again on evaluation approaches, etc. This problem

could be explained by the fact that most researchers did not view projects as systems and did not analyze the causes of project failures in a systemic way.

Considering the case of the GADP, the failure was associated with the weak feasibility study, poor environment analysis and the instability of that environment, inadequate planning, and poor management of relationships among stakeholders, lack of harmonization between management and evaluation, and lack of the use of systems thinking within the project. In some ways, the causes of failures in other projects were similar to those found in the GADP, such as poor communication, inadequate activity schedule and resource allocation, lack of risk management, environment factors, etc. Unlike other projects, the GADP was adversely affected by the genocide and the duplication of responsibilities of the GADP managing director, who was both the director of the GADP and the RDAS, two different institutions, but under the same supervision of MINAGRI, and doing the same thing in the same geographic area to serve almost the same beneficiaries (small farmers as individuals or grouped in cooperatives). These problems were among other obstacles to the achievement of the project's objectives, which included increase of income, job creation, and improvement of health conditions. In view of the importance given to evaluation in the literature, it was surprising that evaluation was underestimated in the GADP and that only two departments of the GADP shared the information from monitoring, at the exclusion of other stakeholders. This happened because of a lack of transparency in the communication of information. It was found that management and evaluation activities were carried out independently, whereas they should be performed in a complementary way during the entire GADP life cycle for the project's success and sustainability.

The theoretical and empirical interests of the researcher led him to design the model (Figure 8-2). No matter how imperfect it might be, it may help to bring together leadership, management, evaluation, stakeholders and environment in a systemic manner. They have to go and work together from the beginning to the end of the project. The purpose of the model is to help design, plan and implement a project that is more likely to be successful and sustainable.

#### **9.2.2.2 Implications of the study for potential users of the research findings**

Documentation is important for any organization. In the context of the GADP it provides information on the GADP's history and organizational environment, leadership and management and problem areas and how they were solved. Such information has benefits in the social, economic and environmental areas. However, in the case of the GADP, documentation was

highly problematic. Many documents were produced but only a small number of them still exist and are kept somewhere privately and not easily accessible. So, it is difficult to get to know more about the GADP, its design, planning, implementation and closeout. For this reason, the researcher has compiled the current research document that will be available in the libraries of the University of KwaZulu-Natal and the National University of Rwanda. The information contained in the document may be useful for future academic researchers (for example in the fields of project management and evaluation) and for business organizations (for information regarding the designing, planning and implementing of projects, as well as the reasons for their failure and ways of preventing failure). The document may also be of use for government institutions and any other organizations (health and education institutions), as it indicates the causes of project failures, particularly environmental factors, and how such failures may be minimized or prevented, for instance through partnership, which may lead to joint ventures.

In this way, the work may prove fruitful. The researcher has prepared a paper (Musekura, 2008) on the basis of the findings of the current research and submitted it for presentation to the Fifth Annual Conference of the National University of Rwanda which was held from 19<sup>th</sup> -25<sup>th</sup> October 2008.

### **9.2.3 Learning experience from the case study of the GADP**

The main lesson learnt from this study is that managing projects in a systemic way can help to cope with a complex and turbulent environments. The systems thinking approach is a holistic way of viewing the whole picture of the project from the phase of conception to the phase of closeout and allows for a continual learning process throughout the lifetime of the project. This was not the approach taken by the GADP. GADP management appeared to follow the traditional way of project management based on the hard systems perspective. According to Crawford and Pollack (2004), in hard systems project goals and objectives are programmed and clearly defined in quantifiable terms at the beginning, and project interfaces (people and occurrences) are expected to interact in a predictable environment. Table 6.1 (section 6.3) shows, that the performances of the GADP were measured in reference to quantitative objectives (hard elements). The failure to achieve these objectives means that the project was unsuccessful. What, however, about soft issues? Crawford and Pollack (2004) and Yeo (1995) found a need for using a soft systemic approach in projects because the approach puts stronger emphasis on iterative project planning and learning, than on prearranged plans for desirable changes. The

approach is much more appropriate in situations that involve soft elements such as human, cultural and political issues.

Soft issues such as partnership (information sharing and joint research) and contracting relations (respecting contracts and conflict resolution), human behaviour (positive attitudes towards people and the physical environment), culture (hard work, cooperation and a sense of ownership and responsibility) and politics (political stability and involvement in projects) should have been integrated into the project planning because of the significant influence they had on the GADP. Hard and soft elements that involved the interaction and interconnectedness of many interfaces of the GADP should have been carefully considered throughout its life cycle. For example, relationships between environmental factors, stakeholder analysis, project life cycle (planning, implementation and closeout) should have been given adequate attention.

#### **9.2.3.1 Environmental factors and stakeholder analysis**

In Rwanda, many people were affected by the genocide that swept away the lives of many thousands of people. They were also affected by politicians pursuing their own political interests. However, Rwandan people are characterized by a culture of hard work and of mutual assistance. That is why in the post-genocide period, the rehabilitation and reconciliation process was launched and significant improvements in the fields of social and economic development were made. As a result, Rwanda is classified among the better performing African countries in the business sector. However, the GADP did not take advantage of cultural benefits to build strong partnerships, particularly with farmers who were the main beneficiaries. Instead, the project distributed free inputs and tried to cover farmers' bad debts. This increased unnecessary project costs and it did not encourage farmers to feel responsible towards the project. Hence, when they needed to make a financial contribution they abandoned the infrastructures (terraces and land). This could have been foreseen and prevented by the GADP by avoiding gifts.

Although the attitude of Rwandan people towards gender is changing, as in other African countries, the role of women has for a long time been limited to doing household work, such as fetching water, looking after children and cooking. Their economic role was neglected, whereas they have been found to be better than men at managing households and businesses. This attitude affected also the GADP. Although the GADP leaders tried to enhance the representation of women in the project, starting with its staff, this representation did not go beyond 34%. Similarly in the area of agricultural loans, women represented 60% of small farmers, of whom

40% were heads of their homes (a problem that is to a great extent due to the genocide). But instead of benefiting this group of women, the bank loans went to a small number of people who were already wealthy. This situation affected not only the sustainability of women-headed families, but also the success of the GADP and the economic development of the project zone (the province of Gikongoro). It was a consequence of the fact that proper stakeholders' analysis had not been done and that women had not been fully integrated in the overall strategic planning of the project.

Other environmental elements adversely affected the GADP. Economic fluctuations led to an increase of input prices, a decrease of crop prices and market share, and increasing inflation and rising exchange rates as a result of political unrest (civil war and genocide), as well as unequal international exchanges in terms of exports and imports. In the demographic area, changes (deaths, internal displacements and exile because of political instability) and bad weather (droughts and floods) affected the GADP, which lost important productive workforces and infrastructures.

#### **9.2.3.2 The GADP planning, implementation and closeout**

Besides the lack of environmental analysis and poor identification of stakeholders, the poor planning of the GADP could be explained by an inadequate organizational structure, which had not clearly defined roles and responsibilities for each category of stakeholders. The inadequate planning was also explained by too many components, which were not proportional to the resources available (total budget cost of US\$ 24.2 million). In setting the project objectives, there was a problem of linking objectives to the project components and activities. Some components and activities had nothing to do with the objectives. The poor definition of the project objectives led to inadequate identification and estimation of resources. The poor planning of the GADP had implications on the phases of implementation and closeout.

During the phase of implementation, the poor definition of the objectives complicated the evaluating and monitoring of the project and the forming of an objective judgment on the degree to which objectives were achieved. When it came to measuring the progress, the problem was that the performance indicators, in some cases, did not reflect the reality because they had not been planned. It could be difficult to see whether there were deviations between planned and actual activities and objectives, and to determine whether the project was behind or ahead of schedule in order to take corrective actions. Delays occurred as a result of dealing with too many

activities, which were poorly planned and beyond the capacity of the project because from the beginning on there had been a lack of consultation within the GADP (internal stakeholders) and with subcontracting organizations (external stakeholders) and because the external environment (ecology, economy, politics and demography) was not integrated in the process of planning.

The lack of consultation between the GADP and its stakeholders was due not only to poor planning, but also to the weaknesses of the GADP leadership, which was unable to coordinate the project activities. The leadership failed to use the participatory approach, which is a good iterative way of identifying needs, planning, executing, controlling projects, communicating the results on the project progress, solving conflicts, and making stakeholders more participative in the project. The GADP's sustainability could not rely on collaborative relationships because the relationships were weak. Hence, agreements were signed but not respected right from the beginning of the project, because of poor planning, which was unable to determine clear roles and responsibilities of stakeholders, and because of weak leadership, which was not able to settle conflicts among stakeholders. This problem also contributed to project delays. Surprisingly, the GADP did take no measure to prevent delays.

Moreover, the GADP outsourced critical components to subcontractors because it was unable to deal with all those components. However, it failed to coordinate the subcontractor activities and did not assist the Research and Development team to focus on the real farmers' needs, assessing the impacts and taking actions for improvement. This resulted in inefficient management of resources. For instance, the storerooms have been built, but they were not used efficiently as they were too many and too big for the crop harvest of the small farmer cooperatives, and these farmers were not trained for their maintenance. The infrastructures, such as storerooms and roads, were also expensive because of the high cost for maintenance. Some cases of embezzlement of subsidies, and misuse of inputs were also mentioned. It was reported that the project had ceased while a great deal of funding remained unused because the administrative procedures were too long and the project duration was too short to accomplish all scheduled activities.

The problem of job description also was crucial. The job of the GADP's employees did not fit their qualifications. In fact, 62.9% of the personnel were working in the Department of Management but did not have a background in economics or management. Only one employee in the department had a university qualification. This problem contributed to the poor



management of the GADP. The Department of Follow-up and Evaluation, and the mid-term mission, carried out almost the same evaluation activities. Surprisingly, the information that they generated was used for different purposes (both for monitoring and impact). The consequence of this situation was not only the waste of resources (money, time and energy), but also could have misled the project management about important decisions to be made. Evaluation reports indicated that some of these areas of management that needed improvement, but the information was not taken to heart and it was shared by only by two departments (the head office and the accounting division). In this context one could speak of poor communication, and lack of transparency and accountability. This problem of communication of information resulted in poor management of archives and a loss of many reports, which could have been used for management and research purposes. It was observed that management and evaluation were treated as independent entities rather than the complementary activities that they are.

The project closeout came as a strange event. The GADP was closed when most of its stakeholders did not expect it because they had not been warned about the closeout. The GADP post-project period was not planned as a result of poor planning and implementation. That is why most of its infrastructures deteriorated (e.g. roads) and others such as storerooms and veterinary centres are not used in spite of having consumed huge investments in time and money.

The experience of the GADP led the researcher to conclude that projects planned and implemented from a systemic way are more likely to survive and even to succeed in complex and turbulent environment, than those managed through the command-and-control style. The scientific management style that the GADP adopted did not allow it to be a learning organization and adapt to its turbulent environment. That is why the researcher designed a model (Figure 8-2) of successful project management and evaluation from a systemic perspective. The model systemically integrates the environment, stakeholders, leadership, management and evaluation into the project life cycle. The model can be of use for, and adaptable to, ongoing and new projects. It encourages the creation and management of learning and partnering organizations. With the model, a good atmosphere can be created in which networking possibilities, strong partnership relations, effective participation, and communication are encouraged. In an iterative way, the model can help stakeholders to research, plan, act, observe and reflect on research results and to continue until their objectives are achieved and their outcomes obtained.

## **9.3 RECOMMENDATIONS**

The case of the GADP gave the researcher the conviction that the sustainable development of organizations depends on how they are: conceived, relate to others, communicate and cooperate with others, to meet people's needs or to alleviate their challenging situations. For this reason, and for the benefit of ongoing and future projects, the following suggestions are made.

### **9.3.1 Introduction of systems thinking as a course in the Rwandan higher educational programs**

The introduction of systems thinking as a course in the programs of higher educational institutions operating in Rwanda could help to improve management systems in both public and private sectors, as the integration of the systems thinking approach is still problematic in developing countries. As the World Bank (2008) indicates, in Rwanda the approach that is currently being used in management is based on scientific management, where managers (in the public and the private sector) are basically evaluated with reference to quantitative measures of performances and targets. According to MINALOC (2007), social and economic development is challenged by the rapidly changing global environment (the increasing demands from different stakeholders), and it is recommended here that a systems thinking approach can provide a more holistic basis on which to initiate sustainable development, where both quantitative and qualitative indicators are accounted for.

However, there will be resistances to the systems thinking approach, but these challenges can be overcome by building and maintaining strong partnerships between higher education institutions and public and private institutions. For instance, the National University of Rwanda (NUR) can play a role through conferences, training and workshops, which are often organized at the NUR, either by the NUR authorities or by other partners, for the benefit of NUR students and staff, in the areas of development, such as ICT, entrepreneurship, peace building and rural development. These gatherings can also be an opportunity to learn how the systems thinking approach can be used in any organization, public or private, academic or non-academic. The scientific management approach is still valid, but cannot deal with complex and uncertain environments. Therefore, managers and leaders in the public and private sectors need this kind of training to be empowered with relevant skills in coping with the rapidly changing environment and the global economy, to make their organizations more efficient and effective. If introduced as a course in the teaching programs of higher educational institutions, the first beneficiaries of systems

thinking would be students for their academic work, but also at their workplaces after graduation, because they are the future managers and leaders. Lecturers also can benefit from such a course because they too have to cope with a changing environment. The problem may be the lack of teachers for the course, but the existing partnership between the University of KwaZulu-Natal and some Rwandan educational institutions may assist to deal with it. The use of systems thinking would be beneficial to the Rwandan community, although the results would be visible only in the long term.

### **9.3.2 Promotion and development of strong partnership between social and economic actors**

The promotion and development of strong partnership relationships between the Rwandan Government, educational institutions, civil society and the private sector at local, national and international levels, should be a good opportunity for joint research aimed at developing the business sector and enhancing the quality of educational programs that might meet the real needs of business organizations, the government and non-profit organizations such as Civil Society. As most organizations become project-based organizations to be more efficient and effective, partnership relations are important factors for their projects' success because of opportunities to share information and for technology transfer. Areas of joint research for the development of Rwandan organizations may include education, business, health, environment protection and conservation, water management.

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## **APPENDICES**

### **Appendix 1: Rwanda and Tanzania's location**

Rwanda is bordered on the west by the Democratic Republic of Congo, on the east by Tanzania, on the north by Uganda, and on the south by Burundi. Throughout the year, the country has a favourable climate: mild, sunny, stable and temperate. The average annual temperature is 18°C. It results from the effect of the trade wind and the coolness from its mountains (Computing Centre, National University of Rwanda, 2000).

Tanzania is bordered on the west by the Democratic Republic of Congo, Burundi and Rwanda, on the east by Indian Ocean, on the north by Kenya and Uganda, on the south by Malawi, Mozambique and Zambia, (Icontem, 1999).

## Appendix 2: Maps of Rwanda and Tanzania

Rwanda map



Source: Icontem (1999)

Tanzania map



Source: Icontem (1999)

### Appendix 3: Characteristic features of Rwanda and Tanzania's economies

<b>Rwanda</b>	<b>Tanzania</b>
<p>Rwanda's economy is mainly based on agriculture, and most of workers are employed in subsistence farming. Rwanda's economic development is challenged by the needs of its high population growth and limited access to foreign markets because of difficult access to the sea. The livestock is basically constituted of a large number of sheep, goats and cattle. The principal crops are cassava, pulses, bananas, potatoes and sorghum. The main cash crops are pyrethrum, tea, and coffee. As the level of the domestic production is still too low to cover local food needs and exports, food is imported. The shortage of food crops was exacerbated by the civil war which broke out in 1990 and culminated in the genocide of 1994 with severe refugee problems as a result (The Columbia Electronic Encyclopaedia, 2007).</p> <p>Wolframite and Cassiterite are significant mining products in Rwanda. A great quantity of natural gas is produced at Lake Kivu. The industries of Rwanda are limited to small manufacturing companies, producing cement, chemicals and textiles. They also produce consumer goods namely beverages (specifically beer), processed food, footwear and clothing. The road network infrastructures are good. There is an, international airport based in Kigali but there are no railroads (The Columbia Electronic Encyclopaedia, 2007).</p> <p>In Rwanda, the annual import value is significantly higher than export earnings. The greatest part of imports consists in machinery, construction materials, foodstuffs, fuel and motor vehicles. The basic export products are cassiterite, hides, coffee, wolframite, pyrethrum and tea. The main trading partners are the Netherlands, Belgium, Kenya and Germany. To balance its national budget, the government of Rwanda depends, to a great extent, on outside assistance to fund development projects, to finance foreign purchases, and to balance its national budget (The Columbia Electronic Encyclopaedia, 2007).</p>	<p>The Tanzania's economy is principally based on agricultural products such as pyrethrum, tea, coffee, rice, sisal, tobacco, peanuts, cotton, sugarcane, cashews, cloves (cultivated in Pemba and Zanzibar) and copra. A large proportion of the population is occupied in subsistence farming and grows cassava, corn, bananas, millet, sorghum, vegetables, and wheat. A great number of goats, sheep and cattle are raised. Timber importantly includes teak, mahogany, mangrove, camphor wood, and ebony. The industries are largely limited to manufacturing plants and the production is based on beverages, processed agricultural products, paper and other main consumer goods. Aluminium products, construction materials including particularly cement, fertilizers, and refined petroleum are also produced. The mining production is based on gemstones such as diamonds and tanzanite. Other minerals such as salt, gypsum, gold, phosphates and kaolin are extracted in significant quantities. Tin mines are also found in NW Tanzania and iron ore and coal deposits near Lake Nyasa. Deposits around Songo Songo Island, off the central coast provide NATURAL//----I, which is used for producing electricity (Icontem, 1999).</p> <p>In Tanzania, road and rail networks are limited. The principal rail lines run from Dar-es-Salaam to Tanga, Moshi, and Arusha in the NE and to Kigoma (on Lake Tanganyika). Uhuru railroad that the Chinese built in the 1970s joins Dar-es-Salaam and central Zambia, providing the landlocked Zambia with an alternative route to the sea. The trade deficit of Tanzania is growing due to nationalization efforts. The main export products are gemstones such as diamonds, and agricultural goods. The imports are mainly based on machinery, consumer goods, foodstuffs, transportation equipment, chemicals and refined petroleum. The chief trade partners are Japan, Kenya, the European Union countries, the United States and India. Tanzania is a member of SADEC (Southern African Development Community) (Icontem, 1999).</p>

#### **Appendix 4: Informed consent letter for research**

Durban, 16<sup>th</sup> November 2006

Celestin Musekura  
Student at the University of KwaZulu-Natal  
Westville Campus - Leadership Centre  
E-mail: [musekurac@yahoo.fr](mailto:musekurac@yahoo.fr)

#### **RE: Informed consent for research**

Dear Madam / Sir,

I am pleased to write, requesting you to participate in the current research entitled “The causes of the failure of Gikongoro Agricultural Development Project” (GADP) implemented in the southern Rwanda. The research is centred on the evaluation of the GADP in terms of its relevance, coherence, effectiveness, efficiency and impacts. As the study under investigation is qualitative, the primary goal is to describe and understand the problem situation faced by the GADP and then draw useful lessons for the benefit of ongoing and future projects. The study is also undertaken in the context of completing my PhD degree in Strategic Project Leadership and Management. In fact, as a lecturer at the National University of Rwanda, this degree will help me to provide better services to the Rwandan community. Given the importance of the study, your opinions are highly valued.

As you are busy with your daily activities, the involvement in the research will not take you a long time. The duration of the participation will be 2 hours maximum. The process of this research activity will follow these steps. The first day, 20 minutes will be enough for our personal and physical contact, the distribution of the interview instrument, and the setting of the appointment. This will be an occasion for you to understand the contents of the document before giving your consent. On the day of the interview, 1 hour and 30 minutes is enough. In addition, you are free to join the research and withdraw from it for any reason, as your contribution to the process of this research is voluntary. The researcher secures the respect for your dignity, anonymity and confidentiality in analyzing data and publishing the findings. Furthermore, you have the right to be informed about the findings of the research before their publication.

However, the researcher does not guarantee any potential benefits for participating in the research. But, if your participation, for any reason, requires that you spend some money, this will be refunded. If you need further information from an independent person about the researcher or the current research, you may contact the supervisor of the work Professor Robert Taylor. He is a lecturer and Director of Leadership Centre at the University of KwaZulu-Natal, Westville Campus. His addresses are the following. E-mail: [taylorr@ukzn.ac.za](mailto:taylorr@ukzn.ac.za); Telephone (+ 27) 0828251634.

I look forward to hearing from you.

Yours faithfully,

Célestin Musekura

## **Appendix 5: Interview instrument**

### **A. Presentation of the researcher**

I am Célestin Musekura, a student at the University of KwaZulu-Natal, Campus Westville, Faculty of Management studies. I am doing my PhD degree in Strategic Project Leadership and Management. The purpose of this interview is to get your opinion on the project GADP. I ensure you of anonymity and confidentiality about your name and opinion at the moment of analysing data and publishing the findings of the study. Feel free during our conversation to ask for clarification, understanding, and other issues that seem unclear for your intervention.

### **B. Identification of the respondents**

Age	Gender	Marital status	Domicile (District)	Dependent relatives (number)	Ownership (house, land, and, livestock)	Home headship	Current job

### **C. Questions**

In answering questions, it would be possible that you are not concerned with some of them. If this is the case, you are not requested to answer them.

#### **I. Knowledge about the GADP**

1. Do you know anything about the GADP?
2. How do you know it?
3. Were you, at some extent, involved in the GADP?
4. What role did you play?

#### **II. Project Design**

5. Did you participate in designing the project?
6. What was your contribution?

#### **III. Implementation of the project**

##### ***a. Land development and distribution, farming inputs, and commercial crops***

7. Did you get any part of land developed by the GADP?
8. What requirements might be fulfilled to get a parcel and take care of it?
9. What requirements might be fulfilled to get farming inputs from the GADP?
10. What role did the GADP play to get the market for your commercial crops and problems faced in this matter?

##### ***b) Livestock production***

11. Was there any GADP's contribution to improve livestock production in Gikongoro?

***c. Agricultural loans***

12. What requirements might be fulfilled to get the GADP or bank loans?
13. If you got that financial support, did you invest the loans in the activity for which they were granted, or you had other priorities?
14. If you had difficulties in repayment, what were they?

***d. Organizational environment***

15. In the context of conservation and protection of natural resources (land, forest, water, etc), what role did you play in collaboration with the GADP?
16. What difficulties did you have in that action?
17. Did any environmental events (political, economic, technological, climatic, demographic, cultural issues) affect the GADP?

***e. Training***

18. What requirements might be fulfilled to be selected as a beneficiary of training?
19. What kind of training did you receive?
20. What problems did you face during the training and implementation of the new knowledge from the training?
21. Why do you think the GADP was involved with training employees of other organisations?

***f. Partnership relationships***

22. What kind of agreement did you conclude with the GAD?
23. What problems did you have with the GADP in executing the contract?
24. How did the GADP collaborate with central government, MINAGRI, government agencies operating in Gikongoro, RDAS, sponsors, farmers, and subcontractors to achieve the objectives related to employment, food security and environment protection? What problems did the GADP face in this matter?

***g. Management issues***

25. According to your knowledge and experience, what do you think about the problems that the GADP faced concerning resource management: human resources, financial resources, material resources, economic infrastructures resources (roads, stores, inputs), and documentation (archives)?
26. How was the process of conflict management, decision-making, acting and monitoring in the GADP?

***h. Communication***

27. How did you get information about progress of the execution of the GADP?
28. According to you, what kind of problems would the GADP have encountered in communicating with you and other stakeholders in general?

***i. Research and development***

29. What problems did the Research and Development Unit face in carrying its responsibilities?

***j. Evaluation***

30. How was the evaluation of the GADP done from the beginning to the end of the project? (Participants, use and users, calendar, etc). What problems did the GADP face in carrying out the evaluation and using the results of that evaluation?

**IV. Closeout of the GAD**

***j. Impacts.***

31. According to you, what would be the causes of the failure of the GADP while it was financed by Rwandan government and the big international organisations like World Bank, IFAD, PNUD, FAO, PAM? Were there difference of interests or conflicting interests between Rwandan government and those organisations?
32. Were your expectations and needs met by the GADP, in terms of integration in the project, increase of incomes, new projects generating incomes, enhancement of nutrition, health care, accommodation, communication, transport, etc?
33. How was the GADP's closeout planned and executed?

**V. Main problem of the GADP's failure**

34. According to you, what would be the main problem that would keep GADP from achieving its objectives?

**VI. Overall assessment of the GADP**

35. Fill in the following table rated with poor, satisfactory, and good (tick)

Assessment of the design, implementation and results of the GADP			
Life cycle of the GADP	Percentage distribution of assessment rated		
	Poor	Satisfactory	Good
Design			
Implementation			
Output			
• Quality	.....	.....	.....
• Quantity	.....	.....	.....
Effects			
Impacts			

**VII. Suggestions**

36. What should you suggest that should be done to keep existing and future projects from failing into the same mistakes as did the GADP?

Thank you.

Célestin Musekura