THE MANAGEMENT OF INDIGENOUS KNOWLEDGE (IK) INITIATIVES IN SWAZILAND

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FOREWORD

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ABSTRACT

Indigenous Knowledge (IK) is an important resource which needs to be collected and preserved for present and future generations and also disseminated in every possible way. Muswazi (2001) states that Swaziland has an immense quantity of IK dealing with almost every aspect of daily life such as food production, preparation and preservation; agriculture; leadership; medicinal plants and their use and so on. It is therefore important that this useful information be well managed to be accessible for present and future generations. If not well managed, its abundance would be of no significance to potential users.

IK if appropriately utilised, can enhance productivity and development. A lack of knowledge or inappropriate use of it, can lead to poor decision making and generally impact negatively on production and development. The fact that IK systems are at risk of becoming extinct pose a very big challenge to the Swaziland National Library (SNL), the Swaziland National Archives (SNA), the Swaziland National Museum (SNM) and the University of Swaziland (UNISWA) Library which are sites for this study. This is because among other functions they are tasked with managing IK.

This present study was conducted to investigate the strategies used by the four institutions to collect and preserve IK for future use. This study adopted the qualitative research methodology. The study population consisted of four administrators and eleven staff members dealing with the management of IK in the four institutions. Semi-structured interviews and observation were used as data collection tools. Information gathered through the interviews was analysed using content analysis and then presented in the form of tables and graphs.

The study found that there are no policies specific to the management of IK in Swaziland which the institutions, which are the focus of this study could rely on for the effective management of IK. Most of the institutions use tape recorders, video cameras and digital cameras to record IK. Sometimes IK is collected by writing down what informants give to those who collect IK, but this strategy is not used very much.

To store IK, the institutions depend on the audio/video cassettes and computers and in addition to that the SNM uses cabinets to store the IK objects themselves.

From the responses given by the administrators, the study concluded that there are not sufficient skills or special training in place for the staff members dealing with the management of IK at SNL and UNISWA Library. It is only in the SNM and the SNA that serious training has been arranged for the staff members.

The study revealed that there is a lot of marketing being done by the institutions in question to ensure effective and efficient service delivery in the provision of IK to their users. The study also revealed that there are a number of challenges faced by the four institutions when managing IK. Recommendations were made based on the findings of the study.

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LIST OF ACRONYMS AND ABBREVIATIONS

CBD	Convention on Biological Diversity
CIDA	Canadian International Development Agency
HEIA	Historical Environmental Impact Assessment
ICOM	International Council of Museums, Monuments and Cites
ICTs	Information and Communication Technologies
IDRC	International Development Research Centre
IFAD	International Fund for Agricultural Development
IFLA	International Federation of Library Associations and Institutions
IGCSE	International General Certificate of School Education
IIRR	International Institute of Rural Reconstruction
IK	Indigenous Knowledge
ILL	Inter-Library Lending
IPRs	Intellectual Property Rights
ISBN	International Standard Book Number
ISSN	International Standard Serial Number
JICF	Japanese International Cultural Funding
SADC	Southern African Development Community
SARDC	Southern African Research and documentation Centre
SNA	Swaziland National Archives
SNL	Swaziland National Library
SNLS	Swaziland National Library Services
SNM	Swaziland National Museum
SNTC	Swaziland National Trust Commission
SUNICAT	Swaziland Union Catalogue
TRIPS	Trade-Related Intellectual Property Rights
UBLS	University of Botswana, Lesotho and Swaziland
UNCTAD	The United Conference on Trade and Development
UN	United Nations
UNESCO	United Nations Educational Scientific and Cultural Organisation

UNISWA	University of Swaziland
WIPO	World Intellectual Property Rights
WTO	World Trade Organisation

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Indigenous Knowledge (IK) is an important resource which needs to be collected, preserved for present and future generations and also disseminated in every possible way. The reason behind this assertion is because in certain contexts, as in Swaziland, IK forms the basis for everyday life for the public at large. The fact that IK systems are at risk of becoming extinct poses a challenge to the Swaziland National Library (SNL), the Swaziland National Archives (SNA), the Swaziland National Museum (SNM) and the University of Swaziland (UNISWA) Library which have been chosen as sites for this study. This is because, among other functions, they deal with the management of IK. The study was conducted to investigate the strategies used by the four institutions to collect and preserve IK for future use.

Indigenous or local knowledge has been defined as knowledge that is unique to a given culture or society and communities. It is local know-how and cultural practices that belong to a community and are transmitted orally between generations (Raseroka, 2002: 2). Raseroka (2002: 2) lists the following characteristics of indigenous knowledge:

- IK is generated within communities.
- It is location and culture specific.
- It is the basis for decision making and survival strategies.
- It is not systematically documented.
- It covers critical issues: primary production, human and animal life, and natural resources management.
- It is dynamic and based on innovation, adaptation and experimentation.

Akullo et. al (2007: 2) mention that IK is stored in people's memories and activities. "It is expressed in stories, songs, folklore, proverbs, dances, myths, cultural values, beliefs, rituals, community laws, local languages and taxonomy, agricultural practices, equipment, materials, plant species and animal breeds" (Akullo et. al, 2007: 2).

Obamsawin (2002: 29) quoted by Mondo, Baryamureeba and Williams (2007:163), concurs with Akullo et. al's observation when he (Obamsawin: 2002) says that IK is stored in people's memories and activities and is expressed and communicated orally. Mondo, Baryamureeba and Williams (2007: 163) quote Obamsawin (2002: 29) and Grenier (1998: 14) who have said that the inadequacy of IK management and sharing is that most of it has been confined to tacit knowledge and hence it has not been codified, thereby limiting access, storage and retrieval.

> For IK to survive, there has to be a dynamic knowledge system
> for capturing and codification of tacit knowledge that facilitates
> interchange between tacit and explicit knowledge and this will
> enhance collaborations, management and utilisation of IK
> (Mondo, Baryamureeba and Williams, 2007: 164).

The World Bank Group (1989: 1) lists the following points to the effect that IK is important. IK is important because:

- It provides problem solving strategies for local communities, especially for the poor.
- It represents an important contribution to global development knowledge.
- IK systems are at risk of becoming extinct.
- IK is relevant for the development process.
- IK is an under-utilized resource in the development process.

Swaziland is a developing country with a high percentage of poor people in the population. The International Fund for Agricultural Development (IFAD) (2007: 1) suggests that about 84% of Swaziland's poor people live in rural areas. It continues to say that about 64% of the population is unable to meet basic food needs, while 43% live in chronic poverty. According to the IFAD (2007: 1) one of the causes of poverty is a lack of basic knowledge as to how people can make their lives better. An example would be basic knowledge on how to grow healthy vegetables, how to take care of livestock and what a balanced diet entails. Learning from IK, by investigating first what local communities know and have, can improve the understanding of local conditions and

provide a productive content which can better sustain even the poor people of Swaziland (World Bank, 1998).

Kaniki and Mphahlele (2002) state that knowledge and its related components can and does affect productivity and human development, whereas a lack of or inappropriate use of it can lead to poor decision making and generally impact negatively on productivity and development. This study was conducted to find out if the suggested strategies (to be discussed at a later stage) which can be used in the management of IK are being used in Swaziland by the institutions named above. One of the challenges in the management of IK includes lack of finances. This study was done to emphasize the importance of IK and therefore the need for its proper management.

1.2 STATEMENT OF THE PROBLEM

IK if appropriately utilised, can enhance productivity and development. Makara (2002) says that since knowledge is the cornerstone of development, a strategy is needed to promote IK and to make this knowledge more accessible to development enterprises.

The National Library has many functions but its main function as outlined by Mkhwanazi (1996) is making information on Swaziland available for study and research. The Swaziland National Archives' mission is to empower Swazi citizens to fully participate in their country's social, political and economic life through the equitable development, preservation and protection of the Swazi cultural heritage (Swaziland Government, 2008b). The University of Swaziland Library's mission is to efficiently provide services and access to quality academic information resources, irrespective of format and location, to University staff, students and associates in support of the instructional, learning, research and administrative functions of the University. One of the objectives of the University of Swaziland Library is to develop a collection that is sufficiently comprehensive and representative of the universe of knowledge and ideas to keep pace with the changing needs of the users (UNISWA, 2007). The Swaziland National Museum (SNM) is a department of the Swaziland National Trust Commission (SNTC). The mission statement of the SNTC is "to preserve the cultural heritage and to conserve the

natural heritage of Swaziland for the benefit of present and future generations of Swazis and all mankind" (SNTC annual report 2000/01, n.p: 3).

The SNM has an essential role in preserving past traditions and culture for future generations (IK). This study was conducted to find out if the missions of the four institutions in managing IK in Swaziland are being achieved successfully. To determine success, the study checked against strategies suggested for the management of IK against the management strategies being used by the above four institutions. What has been common in libraries is that information or knowledge was, and still is, preserved in the form of books, pamphlets, journals or reports. These information sources are not very relevant or useful to the rural community in Swaziland who in most cases are illiterate or semi-literate. IFAD (2007) reveals that as many as 70% of adult females in Swaziland are illiterate. In addition to investigating how these four institutions manage their IK, this study also set out to investigate the types of technology they use in doing so. The challenges in the management and preservation of IK are examined and how they have been addressed in order to find a way forward.

One can gather from the study conducted by Muswazi (2001) that Swaziland has an immense quantity of IK dealing with almost every aspect of daily life such as food production, preparation and preservation; agriculture; leadership; medicinal plants and their use and so on. It is therefore important that this useful information be well managed to be accessible for present and future generations. If not well managed, its abundance would be of no significance to potential users.

The culture in Swaziland concerned with knowledge collection and storing was to a large extent based on oral communication. This means that local knowledge was not recorded, but kept in people's minds. This knowledge has been passed on from generation to generation through story-telling, poems, songs or through informal ways of teaching. The informal ways of teaching were done by groups. Women taught girls as they grew up and men taught boys. A disadvantage to this form of knowledge management is that, the human mind has a limited capacity. Knowledge in someone's mind could be forgotten

altogether. It can also be distorted in the process of sharing or else it can even be lost if someone who has it dies. IK is tacit knowledge as it is in the beholders' minds, but it can then be reclassified as predominantly explicit when it has been documented. Awad and Ghaziri (2004) point out that since the human mind is the storage medium, tacit knowledge is vulnerable to loss. But when it is recorded and shared, vulnerability is reduced, and it is easier to re-use. Awad and Ghaziri (2004) mention that knowledge is classified into a variety of types, therefore it is important when considering its management that the knowledge manager should be familiar with each type and know how to tap into it during knowledge capture. Another problem is that information organisations are not doing enough for the management of IK, for example there is a lack of resources to acquire IK. Resources could be both financial and human.

1.3 SIGNIFICANCE OF THE STUDY

This study is important because there has been little research done on the management of IK in the library and information fraternity in Swaziland. Studies known to the researcher on IK management in Swaziland have been done by Muswazi (2001) and Dlamini (2005). This study aims at showing the strategies used by staff members dealing with the management of IK in Swaziland, the challenges they are faced with whilst conducting their duties and then finally recommendations on how the management of IK can be improved from its present status. There is a need for the Swaziland Government, which sponsors the SNL, the SNA, the SNM and the UNISWA Library, and all other stakeholders involved to be made aware of the important contribution IK can make if effectively and efficiently managed and therefore to support the four institutions financially.

1.4 RESEARCH QUESTIONS

The study is aimed at providing answers to the following questions:

- Are there policies specific to IK management in place in Swaziland generally and in the four institutions specifically?
- Are there set standards or specified guidelines for IK management in Swaziland?
- How is the issue of intellectual property rights handled by librarians dealing with

the management of IK?

- What strategies are used to collect, preserve and disseminate IK by the four institutions?

- How do the four institutions determine who they collect IK from?

- In what format is IK stored by the four institutions; that is, analogue, digital or other formats?

- After IK has been collected, is there any repackaging being done to facilitate dissemination?

- Do librarians involved in the process of managing IK have the necessary skills for IK management?

- What efforts are made by the four institutions to market their IK-related services to ensure effective and efficient service delivery in the provision of IK to their users?

- What challenges do the four institutions face in managing IK?

1.5 DEFINITION OF KEY TERMS RELEVANT TO THE STUDY

The following terms have been defined according to how they are used in the study.

1.5.1 HERITAGE

The history, traditions and qualities that a country or society has had for many years and that are considered an important part of its character (Hornby, 2005: 699-670).

1.5.2 INDIGENOUS KNOWLEDGE

Warren (1991) quoted by Chilimo and Sanga (2006) said that indigenous knowledge is a body of knowledge that evolves over time and is communicated orally from one generation to the next.

1.5.3 INTELLECTUAL PROPERTY RIGHTS (IPRs)

Intellectual property rights (IPRs) are rights granted to creators and owners of works that are the results of human intellectual creativity. These works can be in the industrial,

scientific, literary and artistic domain. It can be in the form of an invention, a manuscript, suite software, or a business name (JISC Legal Information Service, 2006).

1.5.4 INTER-LIBRARY LENDING
Inter-library lending is defined as transactions in which library materials are made available by one library to another, to obtain upon request of a library user, materials not available in the user's local library at which the user has borrowing privileges (LALINC, 1998).

1.5.5 KNOWLEDGE MANAGEMENT
There are many definitions of knowledge management, but for this study the definition which will be used is that of Mchombu's (2006: 5) whereby he defines knowledge management as "a disciplined approach to managing all the knowledge processes found in human collectives (a set of people with common goals)". Knowledge management is what we do to accomplish our goals faster and more effectively by delivering the right knowledge to the right person at the right time and in the right context.

1.5.6 LEGAL DEPOSIT
Legal deposit as defined by Prytherch (2002: 434) is "a method whereby certain libraries are entitled by law to receive one or more copies of every book or other publication which is printed or published in the country".

1.5.7 NATIONAL LIBRARY
A national library is "a library designated and funded by a national government to serve the nation by maintaining a comprehensive collection of the published and unpublished literary output of the nation as a whole, including publications of the government itself" (Reitz, 2002).

1.5.8 REPACKAGING

Repackaging is "the selection of appropriate materials, re-processing the information in a form that can be readily understood, packaging information, and arranging all these materials in a way that is appropriate to the user, thus combining two essential concepts inherent in the term repackaging (that is re-processing and packaging)" (Bunch, 1984: 40).

1.5.9 TACIT KNOWLEDGE

According to Al-Hawamdeh (2003) tacit knowledge is "context-specific knowledge that resides in an individual. It is hard to formalize, making it difficult to share with others. This is because it may even be subconscious. Tacit knowledge centres on 'mental models' that people carry internally. These mental models are concepts, images, beliefs, viewpoints, value sets, and guiding principles that help people define their world. This type of knowledge also includes a technical element that includes concrete skills and expertise and the hands on experience that comes from practice" (Allee, 1997).

1.6 CONCEPTUAL FRAMEWORK UPON WHICH THE STUDY WAS CONSTRUCTED

This study is guided by the perspective provided by the International Federation of Library Associations and Institutions (IFLA) which provides standards for libraries. The following are IFLA's declarations as listed by the IFLA website:

- IFLA has declared that human beings have the fundamental right of access to expressions of knowledge, creative thought and intellectual activity and to express their views publicly.
- IFLA acknowledges the intrinsic value and importance of indigenous traditional knowledge and local community knowledge, and the need to consider it holistically.
- IFLA furthermore notes the need to recognize the significance, relevance and value of integrating both indigenous traditional knowledge and local community knowledge in providing solutions to some of the most difficult modern issues and encourages its use in project planning and implementation. IFLA then goes on to note the following:

- The need to implement effective mechanisms for technology transfer and capacity building.
- The need to protect indigenous traditional knowledge and traditional knowledge for the benefit of the rest of the world.
- The need for protection against exploitation in accordance with the convention on Biological Diversity, the International Labour Organisation (ILO) convention 169 and other conventions relating to sustainable development and the interests of indigenous peoples (IFLA, 2004: 1).

This study is further guided by IFLA's recognition that the character of IK does not lend itself to print, electronic or audio-visual means of recording. Therefore, in order to ensure the continued preservation, access and elaboration of this useful resource, it recommends that libraries and archives:

- Implement programs to collect, preserve, disseminate IK and local/traditional knowledge resources.
- Make available and promote information resources which support research and learning about IK and traditional knowledge, its importance and use in modern society;
- Publicise the value, contribution, and importance of IK and local traditional knowledge to both non indigenous and indigenous peoples;
- Involve elders and communities in the production of resources and teach children to understand and appreciate the traditional knowledge background and sense identity that is associated with IK systems;

- Urge governments to ensure the exemption from value added taxes of books and other recording media on IK and local traditional knowledge;
- Encourage the recognition of principles of intellectual property to ensure the proper protection and use of IK products derived from it (IFLA, 2004: 1-2).

In addition to the IFLA declarations and recommendations, the study is also guided by the Historical Environmental Impact Assessment (HEIA) framework. According to

Showers (2004: 5) the HEIA has provided a framework for understanding human-induced environmental change using local environment knowledge. HEIA favours neither western science nor IK. Instead, the two systems of data collection are seen as complementary, in the sense that each has its own strength and limitations. Showers (2004: 5) observed that when a human intervention on the landscape causes a new phenomenon, there is no IK available concerning its management or prevention even if the origin and development of the phenomenon may have been observed and indigenous experimentation carried out to deal with the consequences. His assertion is that archival material often provides data which support or adjust environmental information derived from local sources; therefore using these sources of information can help in understanding the significance of the intervention and also provide a basis for monitoring and remedial action.

Showers (2004: 5) notes that the environmental consequences of indigenous land use systems have been discussed from the early years of this century, but documents which demonstrate the sustainability of indigenous systems and the degradation resulting from European land use practices and policies in various parts of the world have not been widely disseminated. Showers (2004: 5) asserts that indigenous and local environmental knowledge has the potential to advance people's understanding of the environment in all societies. It is therefore important just like Showers (2004), Warren (2004) and other IK authors asserted, that IK should be available in libraries, archives and information centres, alongside the millions of other studies by societies with written traditions. Warren (2004: 4) points out that, IK systems are not part of the global knowledge system until they have been recorded and made available to the global community.

1. 7 LIMITATIONS OF THE STUDY

The study concentrated on the management of IK in Swaziland with particular focus on the SNL, the SNA, the SNM and the UNISWA Library (Swaziland Section). Although the Swaziland National Library Services (SNLS) (of which the Swaziland National Library is a part) has 14 branch libraries scattered across the nation, they are not the main focus because they do not deal with IK management. The SNM is one of the departments

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of the Swaziland National Trust Commission (SNTC). The other departments of SNTC could not be part of this study because of time constraints.

Another limitation is that although there are other institutions in Swaziland dealing with the management of IK, like the Swaziland Broadcasting and Information Services, the Swazi Society and others, they have been excluded from this study because of time constraints as mentioned above. Another reason is that this study is a coursework Masters thesis which is submitted as a partial fulfilment of the course.

1.8 DIVISION OF CHAPTERS

This thesis has seven chapters. The first chapter presents the background to the study, the statement of the problem, the significance of the study, research questions, definition of key terms relevant to the study, the conceptual framework upon which the study was constructed and the limitations of the study. Chapter two presents the literature that has been reviewed in order to ascertain what other researchers say about IK. The third chapter focuses on the historical background of Swaziland and the four institutions in focus. The research methodology for this particular study is described in Chapter four. Chapter five is the presentation and analysis of the findings of the study. Chapter six presents the interpretation of the results of the study. Finally Chapter seven presents the review of the study, summary of findings, recommendations and the conclusion.

1.9 SUMMARY OF THE CHAPTER

This chapter was dedicated to discussing the background to the study, the statement of the problem, the significance of the study, the research questions, definition of key terms relevant to the study, the conceptual framework of the study, the limitations of the study and a brief outline of how the chapters of the whole thesis are arranged. It is important to collect, preserve and disseminate IK for present and future generations to prevent it from extinction. This is because it is an important resource as mentioned in this chapter.

CHAPTER 2: THE SWAZILAND NATIONAL LIBRARY SERVICES, THE SWAZILAND NATIONAL ARCHIVES, THE SWAZILAND NATIONAL MUSEUM AND THE UNIVERSITY OF SWAZILAND LIBRARY

2.1 INTRODUCTION

This chapter gives an overview of the historical background of Swaziland to provide a basis for understanding the country's situation and to assist in delineating requirements for the management of IK tailored in a suitable way for the people of Swaziland. The chapter then provides background information and discusses the four institutions which are the focus of the study. These are the Swaziland National Library (SNL), the Swaziland National Archives (SNA), the University of Swaziland Library, and the Swaziland National Museum (SNM). Amongst other issues the objectives and missions of the institutions will be discussed, with factors such as the importance of the Swazi culture and customs, which determine to some degree the need for the management of IK in Swaziland.

2.2 HISTORICAL BACKGROUND OF SWAZILAND

Swaziland is a small landlocked country in the southern part of Africa, surrounded by Mozambique in the East and the Republic of South Africa in the West, North and South. The Swazi people migrated into the country in the last half of the 18th Century and Swaziland became a British protectorate after the Anglo-Boer war in 1903, and in 1907 became one of the High Commission territories (Levin, 2003: 1094).

> The kingdom had, upon achieving independence from Britain in September 1968, inherited a constitution which was deemed by the Swazi nation as unsuited to its traditional criteria. Certain constitutional changes suggested by the then ruling King Sobhuza II (father of today's monarch) were made, but these modifications never found full acceptance and the constitution was consequently suspended. Freed from the London-based agenda of a Resident Commissioner and his agents, the kingdom was then able to

pursue and refine the system of a national and inner council in consultation with the local chiefs (Swaziland Review, 2008: 3).

The reigning king is King Mswati III crowned in 1986. He succeeded his father King Sobhuza II, who died in 1982 (Swaziland Review, 2008: 4). The king rules in conjunction with the Queen mother (Indlovukazi) which could be either his mother or a senior wife. The Tinkhundla Constituency forums are an important part of the administration of Swaziland as they are national platform centers (places where the nation as a whole is able to voice its opinion). These centers were created to serve as viable arrangements for representivity of different opinions on issues of economy, politics and administration. These forums are a means to facilitate consultation of the national masses on any major national policies (Masuku, 2003: 15). Traditional chiefs (tikhulu) play an important role in terms of authority over various local communities.

2.2.1 DEMOGRAPHY AND SOCIETY

As mentioned earlier, Swaziland is the smallest country in the southern hemisphere, just over 17000 sq km (+10 000 sq miles; limited to approximately 193 km from north to south and 145 km from east to west (Swaziland Review, 2008: 4). The population of Swaziland was estimated at 1.1 million as of November, 2007 (Swaziland Review, 2008: 4). The majority of the population in Swaziland is Christian (77%); 5% are Muslim and the rest follow traditional African religions. The Swazi nation is made up of clans united by tradition and one language, siSwati. Two languages, namely siSwati and English are used as official languages, with English most widely used in business and commerce.

2.2.2 SWAZI CULTURE AND CUSTOMS

Swazi society places great emphasis on traditionalism and conservative values (Booth, 1983: 34) and the Swazis are still a very traditional people with a number of ceremonial customs. These traditional beliefs are emphasized and promoted in each household, the local media, the parliament, chiefdoms and even in schools as they are seen as a way of preserving the identity of the Swazi people (Fakudze, 2002: 2). Two major annual

ceremonies are the Reed dance for un-betrothed maidens in August/September, and the ancient mid-summer kingship ceremony known as incwala which takes place in December/January (Swaziland Review, 2008: 33/4). Both ceremonies are religious in nature. Only young maidens are allowed or qualify to attend the reed dance ceremony. According to Kuper (1986: 147) this ceremony has different levels of meaning. The girls are said to be performing a national service to the queen mother, and at a "more symbolic level, the reeds, costumes, and the dance songs convey their own message in terms of Swazi concepts of fertility, chastity and the power of womanhood" (Kuper, 1986: 147).

The incwala ceremony is regarded as the chief ceremony for the Swazis. From a military point of view, the ceremony appears to be a review of the regiments. As an agricultural ritual, the incwala marks the time from which the "new crop" may be eaten (Lemarchand, 1977:134). Both ceremonies end up with traditional dances performed before the whole nation.

As mentioned earlier, Swazi tradition was passed on from generation to the next by word of mouth. This is the reason why very little has been documented on Swazi tradition and a large percentage of the Swazi heritage has continued to be lost with the passage of time.

The historical background of Swaziland, its culture and customs have been mentioned as a foundation as to why there is a need for the management of IK in Swaziland. What follows is a discussion of the institutions under study beginning with the Swaziland National Library.

2.3 THE SWAZILAND NATIONAL LIBRARY (SNL)

The SNL is a department of the Swaziland National Library Services (SNLS) housed at the headquarters in Mbabane. The SNLS was constructed in Manzini in 1970. Its services began in 1971 operating under the Ministry of Home Affairs then known as the Ministry of Local Administration. The British Council, the United States Embassy and the Ranfurly Library Service were instrumental in its construction and in getting the SNLS functional. It was established to assist in meeting the information needs of Swaziland

(Kingsley, 1991: 33). The SNLS was initially established for recreational purposes rather than to perform the functions of a national library. Hence it was more of a public library than a national library (Mkhwanazi, 1996: 1-2). The vision of the SNLS is "to develop the Swaziland National Library Service as the nation's leading documentary resource institution" (Swaziland Government, 2008a: 1). In 1983 the SNLS premises in Mbabane were opened and these were the headquarters of SNLS.

In the original planning documents and discussions on the SNLS, it was recognized that there was a need for it to also play a national bibliographic role, to incorporate a national library as well as its public library services. The basis for this was the early establishment in the Manzini Library of a Swaziana (Swaziland) collection and the designation of SNLS as a United Nation's (UN) Depository Library. It was however only after the building of the new Mbabane Library that the National Library could be formally established. Its establishment as a separate department was achieved in 1986. Prior to this the UNISWA Library had the financial and staff resources to develop their own Swaziana collection (Mkhwanazi, 1996: 1-2).

As mentioned above, the SNL is a department of the SNLS housed at the headquarters. It is subsidized by the government (Swaziland Review, 2008: 102). It was established as an entity and assigned specific national library functions which are as follows:

- Collecting and preserving the national published output in all its varying forms.
- Processing and organizing the material for efficient and effective use.
- Maintaining and compiling of bibliographies (national and subject bibliographies).
- Collecting foreign publications through exchange and purchase.
- Coordinating and administering of inter-library loans.
- Making information available for study and research on Swaziland.
- Collecting United Nations publications under the terms of its status as a UN Depository Library.
- Monitoring compliance with the Legal Deposit Act (Mkhwanazi, 1996: 2).

The SNL is the national reference and preservation library. For its collection function the library depends a great deal on legal deposit (Mkhwanazi, 1996: 3). According to Fakudze (2003: 5) the SNL is responsible for bibliographic control and any legislation affecting bibliographic control in the country.

The objectives of the SNL are:

- To acquire library material generally and in particular comprehensive collection of library material relating to Swaziland;
- To monitor the collection, receipt and preservation of all library materials required to be deposited in the library through legal deposit.
- To coordinate administration and lending of library material through interlibrary loans to the public;
- To administer national ISBN/ISSN agency;
- To act as the national bibliographic centre, and maintain the national bibliography and other bibliographies;
- To act as an organizing agency for national and international lending and exchange of library materials;
- To initiate and promote cooperation between the local libraries, regional and international libraries;
- To hold the Swaziland union catalogue (SUNICAT);
- To make library materials available to the public for reference purposes;
- To promote research in the library field and in Swaziland;
- To collect UN materials under the terms of its status as a UN depository library; and
- To train and ensure, maintain, coordinate and develop a high standard of librarianship (Mthupha, 2004: 4).

IK MANAGEMENT AT THE SNL

The management of IK at the SNL has been documented in the research findings of the study done by Dlamini (2005: 106). The study revealed that SNLS manages IK, but at a very low level. Lack of funds was cited as one major hindrance.

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STAFFING AT THE SNLS

The SNL is under the leadership of the Director of the SNLS. The Senior Librarian deputizes for the Director. The National Library is then headed by the Librarian who supervises two Assistant Librarians and two Junior Library Assistants. The Librarian and the Assistant librarians are the ones who deal with the management of IK in the library.

2.4 THE SWAZILAND NATIONAL ARCHIVES (SNA)

The Swaziland National Archives was established by the Archives Act No.5 of 1971. Its mission is to empower Swazi citizens to fully participate in their country's social, political and economic life through the equitable development, preservation and protection of the Swazi cultural heritage. The mission statement of the SNA reads thus:

> The SNA promotes national identity, protects personal and public rights of Swazis and promotes efficiency, accountability and transparency of government through the preservation of public records of research value regardless of format and historical information on Swaziland for use in the government and the people of Swaziland (SNA brochure. n.d.).

The SNA has the following sections:

- Records management section which is mainly concerned with improving economy and efficiency in the creation, maintenance and use of records during the entire cycle.
- Archives administration/research centre dealing mainly with non-current records of permanent value. There are also indexes dated between 1947 and 1969 in this section. This centre is mainly consulted by researchers and visiting scholars.
- The library which keeps the primary and secondary materials on Swaziland: books, government publications, reports, conference papers, gazettes dating from 1901, *Times of Swaziland* dating from 1905; press cuttings from South African newspapers and Southern African Development Community (SADC) publications.

- Photography section which has a collection of photographs of national events dating from the pre-independence era to the present time.
- Book binding section dealing with all materials to be bound from all sections (Swaziland Government, 2008b: 1).

The objectives of the SNA are:

- To preserve public and non-public records with enduring value for use by the public and government regardless of format.
- To promote the preservation of both library and archival materials in the country.
- To ensure the proper management and care of all public records by setting standards and professional guidelines to government registries and record centers.
- To collect and preserve information on Swaziland through the Legal Deposit Act.
- To document aspects of the nation's experience that are not covered by the country's records and repatriate migrated archives.
- To maintain national registers on non-public records with enduring value and promote cooperation between institutions having custody of such records once produced.
- To promote an awareness of archives and records management services (Swaziland National Archives brochure, n.d: 4).

Initially the SNA did not concentrate on the management of IK but its services as mentioned above are concerned with the preservation of public and government records. The researcher of this study was told by the Archivist that around 2006 they realized the importance of IK and the need to manage it so they started managing it in 2007.

2.5 THE SWAZILAND NATIONAL MUSEUM (SNM)

The Swaziland National Museum (SNM) is a department of the Swaziland National Trust Commission (SNTC). The SNTC is a statutory body established by Act No. 9 of 1972, the National Trust Commission Act, amended by the King's Order-in-council No. 22 of 1973. The mission statement of the SNTC is "to preserve the cultural heritage and to

conserve the natural heritage of Swaziland for the benefit of present and future generations of Swazis and all mankind" (SNTC annual report 2000/01, n.d: 3). At the same time it emphasizes to the public the irreplaceable value of the national heritage (SNTC annual report 2000/1, n.d: 3). The SNM was built and opened in 1972 and remains Swaziland's only museum.

The objectives and functions of the SNM are:

The SNM has an essential role in preserving past traditions and culture for future generations. Its objectives are as follows:

- to collect all natural and man-made objects that reflect both natural and cultural heritage of the Swazi and Southern African peoples;
- to document all specimens and objects collected;
- to conserve and preserve using the best means possible all items in the collection;
- to exhibit for public information, materials in its collection;
- to serve as an informal education forum for school groups, refugee camps and adult education centers (SNTC, 2008: 1-2).

In the various halls of the museum, articles that reflect the culture and natural history of Swaziland are on display to the public (SNTC Annual Report 2000/01, n.d: 8). The SNM has a library which houses a collection of Swazi historical books and printed matter for research purposes. An education outreach programme for schools, refugee camps and adult education centers is conducted by the SNM. Inside the museum is a photography section with a dark room for processing films of various aspects of traditional life, ceremonies and natural heritage. This section also includes photographs of prehistoric material (SNTC, 2008: 1-2).

2.6 THE UNIVERSITY OF SWAZILAND LIBRARY (UNISWA LIBRARY)

This discussion is about the UNISWA Library but a brief overview of the University of Swaziland (UNISWA) will be given first. The University of Swaziland (UNISWA) developed from the University of Botswana, Lesotho and Swaziland (UBLS), formerly known as the University of Basutoland, Bechuanaland and Swaziland (UBBS), which

had its headquarters in Lesotho between 1964 and 1975 (UNISWA calendar 2008/9, n.d: 19-20). The UNISWA Library being discussed is the one on the main UNISWA campus at Kwaluseni.

The vision of UNISWA is:

> Leadership through excellence in education. The mission of the University reaffirms its faith in the principles of academic freedom and autonomy and endeavors to provide a congenial learning environment, accessible to all people of Swaziland and beyond. Such learning shall facilitate excellence in teaching and learning, research, community service and provide opportunities for consultancy, professional leadership and enterprise development, with the view of nurturing men and women who are well equipped for the job market and self employment (UNISWA calendar 2008/9, n.d).

The mission of the University Library is:

> To efficiently provide services and access to quality academic information resources, irrespective of format and location, to University staff, students and associates in support of the instructional, learning, research and administrative functions of the University (UNISWA Report of the Vice Chancellor 2006-7, n.d: 65).

The UNISWA Library consists of three decentralized units, each with its staff and stock, coordinated at Kwaluseni (the main University campus). The stock of each unit is available to the other libraries through an internal loan system. The three decentralized units are the Kwaluseni Library, the Luyengo Library and the Mbabane (Faculty of Health Sciences) Library (UNISWA calendar, 2008/9, n.d: 50). The Kwaluseni Library is the one this research will focus on because it has the Swaziana (Swaziland) collection. The Swaziana collection consists of information written in Swaziland and about Swaziland. Unfortunately nothing has been written about the contents of this collection.

This study will, in the fifth chapter, discuss its findings concerning IK management in this library.

The objectives of the Library are, among others, to:

- Develop a collection that is sufficiently comprehensive and representative of the universe of knowledge and ideas to keep pace with the changing needs of users;
- Develop and maintain efficient and effective services that are in tandem with the developments in ICTs;
- Provide efficient and effective information delivery services; and
- Promote library staff development through education and re-training (Report of the Vice Chancellor 2006-7, n.d: 65-66).

2.7 SUMMARY OF THE CHAPTER

This chapter provides an historical background to Swaziland and the institutions where the study was conducted, namely the SNL, the SNA, the SNM and the UNISWA Library.

Swaziland is a former British protectorate; which achieved its independence in September, 1968. The historical background of Swaziland helps in understanding the requirements that will be suitable for the people of Swaziland in the management of IK.

CHAPTER 3: LITERATURE REVIEW

3.1 INTRODUCTION

A literature review puts one's research project into context by showing how it fits into a particular field. According to Terre Blanche, Durrheim and Painter (2006: 20) by doing a literature review a researcher examines closely the literature related to his/her topic with the aim of understanding a research problem better and setting parameters on a research question.

This chapter reviews the pertinent literature on Indigenous Knowledge (IK). It will then touch briefly on IK and its characteristics, since they have already been discussed in Chapter one. Chapter two will include the reasons as to why IK needs to be managed, the sources of IK, challenges in the management of IK and strategies that can be used for the management of IK. However, to begin with some broad comments will be made regarding the concept.

Relevant existing literature on IK has been consulted with the intention of finding out what is already known about IK and its management within an institutional setting. Neuman (2006: 111) advises researchers to "do their homework before beginning an endeavour that requires an investment of time and effort" to avoid "reinventing the wheel". Basically what most of them conclude is the concern that IK has been looked down upon. Mchombu (2002: 41) states that western knowledge, with its powerful tools, was thought to have all the answers to humanity's problems. However, Warren et. al (1993) say that "recent research has generated more and more data and information showing the relevance of IK for sustainable development, hence it is important for communities to record their own knowledge" (Warren et al., 1993: 42).

Funding agencies attempt to incorporate issues related to IK in their financial activities as well. Examples of such agencies include the Canadian International Development Agency (CIDA), the International Development Research Centre (IDRC), the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and the World

Bank (Agrawal, 1995: 415). Newsletters, journals and other media emphasize the significance of IK. In numerous conferences, scholars and development professionals discuss the merits of IK and deploy a new populist rhetoric to assert IK's relevance in development (Agrawal, 1995: 415). The fact that indigenous people also hold a wealth of knowledge and experience that represents a significant resource in the sustainable development of society is slowly dawning as well (Ngulube, 2002: 95).

The recording of IK is nothing new, since missionaries and colonial district officers collected information on customary patterns of land tenure, crop and livestock ownership and traditional beliefs and rites, to mention a few. Until recently, the primary strategy for preserving IK has been isolation, documentation and storage in international, regional and national data archives (Brokensha et al., 1980; Warren et al., 1993). In short all the authors who have written about IK like Mchombu (2002) and Ngulube (2002) have pointed out that such knowledge is at risk of extinction. They have suggested that librarians and information professionals find strategies to collect, store, disseminate and preserve IK for present and future use in order that it continues to play an important role in sustainable development of the society, as Ngulube (2002: 95) puts it. The IDRC lists points on how IK is used in Canada (IDRC, n.d: 8-9). The study done by Dlamini (2005) on the management of IK in Swaziland, with specific reference to the Swaziland National Library has also been very useful. Some of the points discussed in that study like the characteristics of IK, intellectual property rights and IK, the management of IK and the importance of IK are relevant topics for this present study. The target population for Dlamini's study was all the professional staff in the library, which is different from the present study. This study is only aimed at people dealing directly with the management of IK and those managing the institutions in question.

It must be noted that apart from Dlamini's study above, the researcher was unable to find any empirical study similar to her own, that is, the management of IK in a particular institution/s. It is acknowledged that the absence of relevant studies similar to this one does impact on the discussion of the results.

3.2 INDIGENOUS KNOWLEDGE

IK can refer to the technical insight or wisdom gained and developed by people in a particular locality, through years of careful observation and experimentation with the natural phenomena around them (Kolawole, 2001: 13). According to Kaniki and Mphahlele (2002: 3) IK is a cumulative body of knowledge generated and evolved over time, representing generations of creative thought and actions within individual societies in an ecosystem of continuous residence, in an effort to cope with an ever-changing agro-ecological and socio-economic environment. IK encompasses information and know-how on a variety of matters including resource management, traditional medicines, craft, artistic designs, cultural assets including folk tales, indigenous poetry, dances, theatre, rituals that adopt the artistic forms, drawings, paintings, sculptures, textiles, musical instruments and architect (Kihwelo 2006: 636). "IK is contrasted and differentiated from Western, scientific or modern knowledge, which may be developed by research institutions and universities" (Kaniki and Mphahlele, 2002: 3).

A main feature of IK is that it is transferred mainly by word of mouth and therefore largely undocumented, making 'bibliographic' control in the traditional sense almost impossible. Although IK has been around since the beginning of humanity, it has generally not been standardised, popularised or internationalised. Kaniki and Mphahlele (2002: 6) mention that the level of IK is often associated with age. That is to say, the elderly have different sub-forms and levels of knowledge compared with the young. According to Kaniki and Mphahlele (2002: 6) many forms of IK exist and have been generated, passed on, shared and practised effectively for different purposes. IK is as important as other knowledge and can provide unique solutions for dealing with local and even non-local situations. Kaniki and Mphahlele (2002: 6) suggest that IK should be included alongside the more usual scientific knowledge, as part of national and international discussions and development and the strengthening of intellectual capacity.

3.3 INDIGENOUS KNOWLEDGE CHARACTERISTICS

This section is an expansion of the characteristics listed in Chapter one which were briefly outlined. Kihwelo (2006: 634) says that IK differs from formal knowledge in various ways including acquisition, storage and transmission. Warren (1991:1) characterises IK as follows:

- IK is an important natural resource that can facilitate the development process in cost-effective, participatory, and sustainable ways.
- It is local knowledge that is unique to a given culture or society.
- IK contrasts with the international knowledge system generated by universities, research institutions and private firms.
- It is the basis for local-level decision making in agriculture, health care, food preparation, education, natural resource management, and a host of other activities in rural communities.
- Such knowledge is passed down from generation to generation, in many societies by word of mouth.
- IK has value not only for the culture in which it evolves, but also for scientists and planners striving to improve conditions in rural localities.

Kolawole (2001: 13) says that IK is related to the entire culture of a people, including its identity and spiritual and religious beliefs. Other major characteristics of IK are as follows:

- It is not confined to tribal groups or the original inhabitants of an area, and it is not confined to rural people. Any community possesses IK, rural or urban, settled or nomadic, original inhabitants or migrants (IIRR, 1996).
- It is based on ideas, experiences, practices and information that have been generated either locally or elsewhere, and have been transformed by local people and incorporated into their way of life (Ina Hoi Riwa Foundation, 2000).
- It is expressed in local languages (Langill, 1999).
- IK is difficult to transmit to those who do not share the language, tradition and cultural experience (SARDC, n.d.).

3.4 SOURCES OF INDIGENOUS KNOWLEDGE

Kaniki and Mphahlele (2002:4) state that there are several sub-forms or sources on which IK draws. The authors (2002: 4) quotes Thakadu (1998: 90) who has concluded that IK systems and practices among the Sankuyo and Xai Xai communities of Botswana were expressed in taboos, totems, customary beliefs, environmental ethics and values and they are passed from generation to generation orally. The following are the main sources of IK as stated by Akullo et al. (2007: 10):

- Interactions with the elderly, parents, grandparents, relatives and friends.
- Visits where one finds a technology being applied and gets interested in it.
- Migration of people with different ethnicity from other parts of the country.
- Radio programs.
- Extension workers.
- Own discoveries.

In addition to these sources of IK, it is stored in people's memories and activities. It is expressed in stories, songs, folklore, proverbs, dances, myths, cultural values, beliefs, rituals, community laws, local languages and taxonomy, agricultural practices, equipment, materials, plant species and animal breeds (Akullo et al., 2007: 2).

3.5 CAUSES OF THE DESTRUCTION OF THE INDIGENOUS KNOWLEDGE BASE

An observation by Mchombu (2002: 40) is that in the past, Western knowledge, with its powerful tools, was thought to have all the answers to humanity's problems. Since Western knowledge was dominant over traditional knowledge, it cast aside and disorganized the knowledge and traditions that rural groups had because they had less power to define themselves and their view of the world. The literature review indicates that IK is in danger of being destroyed. Mchombu (2002: 41) lists some reasons for the destruction of IK which include:

- Young people turning away from their elders and breaking an ancient chain of orally communicated knowledge.
- An education system which is de-linked from the IK base and aimed at providing external information which was considered better than IK.

Ngulube (2002: 22) supports Mchombu's latter observation when he says that "colonialism and the attitude of Africans who were converted to Christianity and Eurocentric elites undermined the place of IK in Africa. Consequently, its validity was widely questioned". Ngulube (2002: 22) argues that it was the rigid approach of Western scientific knowledge towards other knowledge systems that precipitated the devaluing and marginalizing of IK during foreign domination. IK was regarded as invalid, worthless and irrelevant when compared with western codified knowledge. An observation by Chisenga (2002) is that modern education systems in developing countries do not have IK subjects or modules in their curricula. Therefore, IK is not being passed from one generation to another in schools (Chisenga, 2002: 95). Other reasons are as follows:

- A significant part of the land, forests and habitat of indigenous peoples and local communities in many countries is being affected by a combination of deforestation, logging, road construction and dam projects, mining, urbanisation and conversion of forests to tree and agricultural plantations. The loss of resources and habitat has disrupted the social and ecological context within which the communities have made use of their IK. Thus the ability to maintain the knowledge or to use it is eroded (Khor, 2002: 18).

- The future of IK is further endangered by the marginalization of indigenous people in terms of education. For reasons such as discrimination and remoteness, many indigenous children lack access to formal education which in turn leads to further marginalization (Choike, 2003: 1).

Although IK in the past was undermined, the literature that has been looked into by the researcher of this thesis brings to attention that IK is a significant resource for development. Where western social science, technological might and institutional models seem to have failed, IK is often viewed as the latest and the best strategy in the old fight against hunger, poverty and underdevelopment (Agrawal, 1995: 413). The following discussion is on the management of IK.

3.6 THE MANAGEMENT OF IK

After looking at the reasons for the destruction of the IK base as discussed in the above section, there is a need to look at the management of IK and then the reasons why it needs to be managed. Knowledge management in general is expensive because it involves financial, material, human and other resources for it to be successful (Davenport, 1988). The concept of IK management involves the identification, collection, codification, documenting, organizing, preservation, transfer, linking, application, dissemination and sharing of knowledge on indigenous community livelihoods and ecosystems, for sustainable development. Kaniki and Mphahlele (2002:34) assert that most knowledge management principles can be used in the management of IK although several issues need to be addressed for IK to be effectively managed for the benefit of all. One issue to be considered is that since IK was marginalised, and at times treated with suspicion, there is a need for awareness to be raised about its importance; society will recognise its usefulness and thus warrant the allocation of resources to it.

Another issue to address in IK management is the fact that unlike Western knowledge, which is packaged in a shape ready for collection and housing in libraries, IK is primarily the property of communities and is shared and handed down in appropriate situations and according to certain rules. Individuals go through lifelong training in their particular environments, learning to subdue and coexist with nature (Mumba, 2002: 317). There is a need for information professionals to define, recognise and manage this information. The time has come to realise that the problem is not with the user's lack of interest in using IK but there is a need to get in tune with what users reasonably want, need and in which form they require it (Mumba, 2002:318).

Another important issue in IK management is that in the effort to manage knowledge, one has to be in a good position to understand the desired goal of managing IK and who the knowledge is meant to benefit. The aim of managing IK can be diverted from its original reason if no desired goal for IK management is spelt out (Mumba, 2002:318). Owing to its special nature, IK needs innovative methods of definition, collection and dissemination. However, particular care needs to be taken to ensure that the final product

is enjoyed fully by the originators of the knowledge (Mumba, 2002: 319). That means the originators of the knowledge need to be fully acknowledged. The following are major steps in the management of IK as discussed by Mabawonku (2002).

COLLECTION

In collecting IK, there is a need to define the knowledge to be collected, and the likely inhibitors (that could disturb the collection of IK). The culture and knowledge systems have to be identified and taboos considered. The resource person (IK holder) has to be identified and the media to be used for documentation. The resource person or IK holder is the key figure in documenting IK. It is therefore important that she/he is not only knowledgeable, but is also seen as a reliable source. This is to ensure that the IK collected is reliable and authentic. Having more than one resource person would be an advantage especially if there are divergent opinions or some vital links or even if the knowledge has been distorted somehow (Mabawonku, 2002: 54). Some IK is best collected at specific times or seasons. An example would be that IK from ceremonies can only be collected during the time of the ceremony, therefore collection should coincide with the most appropriate period so that collection of IK will be successful (Mabawonku, 2002: 54).

ORGANISING

If the IK has been recorded on cassette and/or video tapes, the next step is to edit the tapes and produce pictures and graphics. The content of the recording should then be summarized in writing either on computer or on a notebook, in other languages like English. Tapes must be labelled with labels containing bibliographic description and subject classification of the content (Mabawonku, 2002: 57).

STORAGE

The collected IK should be stored in large cupboards in an air conditioned room that is suitable for storage. More copies of the IK should be made on audio and /or video cassettes and circulated to other departments so that they could be borrowed if the need arises (Mabawonku, 2002: 57).

DISSEMINATION

Dissemination of IK is very crucial in its management. This, as Mabawonku (2002: 58) says, is because knowledge that is gained but is unavailable to others is wasted. IK dissemination should begin by distributing the collected IK to the respective indigenous groups (IK holders) and hand copies of their recordings distributed to other people. Abstracts and indexes that would create awareness of the collected IK should be compiled and made available (Mabawonku, 2002: 58).

3.7 REASONS WHY IK NEEDS TO BE MANAGED

There is a danger that IK which generally has been passed from generation to generation by word of mouth will be lost. The loss of IK will impoverish society in that the world needs a diversity of knowledge systems for sustainable development (Ngulube, 2002: 95). Ngulube (2002: 62) cites the rapid change in the way of life of local communities to have largely accounted for the loss of IK. The influence of modern technology and education has caused younger generations to underestimate the utility of indigenous knowledge systems (IKS). It is believed that some 80% of the world's population depends on IK to meet their medicinal needs, and at least rely on IK and crops for food supplies. This therefore increases the need for the management and preservation of IK (Ngulube, 2002). Kaniki and Mphahlele (2002: 6) also raise a disheartening point that it is now common to see some of IK being introduced as a modern idea, and then transferred across the borders without recognition of and compensation for the originators of the ideas.

The following are more reasons why IK needs to be managed:

- Lengisugi (2006: 591) says that IK plays a major part as the information base of the society, which facilitates communication and decision-making. IK therefore provides problem-solving strategies for local communities and helps share local visions and perceptions of environment and society.

- IK which was previously equated as heathenism, barbarism and witchcraft is nowadays sought after and stolen to be stored in the "citadel" of Western European institutions of higher learning and scientific research (Kihwelo, 2006: 635).

- IK is now widely recognised as having played and still playing crucial roles in economic, social and cultural life and development, not only in traditional societies but also in modern societies (Khor, 2002: 15).

- Mchombu (2002: 39) asserts that IK is rich in cultural knowledge that provides identity to young people. It helps us answer the questions about who we are and what our history is, about appropriate technology, and useful medicinal plants for curing human and livestock diseases.

- In order for an individual to cope with daily problems and at a higher level of complexity, make a significant difference or change in his/her life, society or community, all knowledge, including IK, is necessary. The level and amount of knowledge that an individual, organisation or community possesses at a particular time cannot resolve and facilitate all the problem-solving and decision-making processes encountered in the course of the IK beholder's existence. The implications of this are that an individual or organisation must learn continuously and acquire and generate new knowledge. They must be aware of who owns knowledge that is relevant and appropriate to particular situations (Kaniki and Mphahlele, 2002: 3). This covers IK as well as any other knowledge.

As mentioned, IK must be managed because it plays a crucial role in the sustainable development of society. Managing IK will help to reduce poverty, enhance equity, reduce environmental degradation and lead to sustainable development, as well as increased local participation in the development process (Warren and McKierman, 1995: 426).

The above paragraphs have discussed the reasons that make it necessary for IK to be managed and the next step is to focus on the challenges in the management of IK.

3.8 CHALLENGES IN THE MANAGEMENT OF IK

Challenges to the management of IK have been noted in the literature and these will now be discussed. Knowledge management as pointed out by Kaniki and Mphahlele (2002: 2) facilitates knowledge generation, sharing and re-use. The main challenges to the management of IK include the methods of identifying it, the access to it, the intellectual property rights and the media and format in which to preserve it. Another challenge is that there is a debate about whether or not to use the Western paradigm for preserving IK. Ngulube (2002: 64) contends that the collection of IK be left to ethnographers, anthropologists, oral historians and other related professionals. Organizing the information and making it usable and accessible can be done by library and information professionals. According to Lawas and Luning (1996) the collection of IK is laborious, time consuming and costly. Thus proper storage and management must be ensured if the knowledge is to be made available and accessible for the benefit of human kind.

3.9 MANAGEMENT STRATEGIES THAT CAN BE USED FOR INDIGENOUS KNOWLEDGE (IK)

As noted earlier, IK management involves the identification, collection, codification, documenting, organizing, preserving, transfer, linking, application, dissemination and sharing of knowledge on indigenous community livelihoods and ecosystems, for sustainable development (Mabawonku, 2002: 52). IK if not recorded and preserved, will be lost and remain inaccessible to other indigenous systems as well as to development workers. Since IK is essential to development, the researcher of this work agrees that it must be gathered, organized and disseminated in the same systematic ways as western knowledge is. IK is vital in development projects to offer sustainable solutions and its use is now considered one of the cornerstones that can guarantee the survival of the economies of the developing world in the wake of scarce resources and reduced donor funding (Ngulube, 2002: 63). The following are some of the "strategies" as Ngulube (2002) calls them, which may be used to manage IK. The strategies have been taken from Ngulube (2002: 64-68) and Kaniki and Mphahlele (2002). Not all of them are listed below, only those that the researcher of this study considered relevant to this study. They have been discussed because they were used as a guide in finding out how the four

institutions which are the focus of this study, manage their IK.

3.9.1 IK MANAGEMENT STRATEGY 1

The Economic Commission for Africa recommends that "oral tradition and indigenous knowledge in African communities should be exploited in all their forms of expression, giving cognizance to the protection of intellectual property rights" (United Nations, 2001: 2). The first strategy is that since there is IK that is unique to certain individuals, intellectual property rights (IPRs) should be upheld so that indigenous communities can benefit from commercial use of their IK. After organizing the IK, information professionals can then invoke their knowledge and skills in enforcing copyright matters to protect the IPRs of indigenous people (Ngulube, 2002: 65).

In agreement with this observation, Kaniki and Mphahlele (2002:10) noted that humans have recognised that money, time, effort and other resources invested in the creation and/or development of intellectual property or know-how (knowledge) must be recognised and rewarded. Legal frameworks, rules and regulations, such as copyright laws, patent laws, trademarks and trade laws, have been put in place to protect an individual's intellectual property. It is therefore important for IK managers to identify who owns what and who has the right to use an individual's knowledge (Kaniki and Mphahlele, 2002: 10). The individual's creativity and invention needs to be recognised and protected. The issue of IK and IPRs will be discussed in more detail later in this chapter.

3.9.2 IK MANAGEMENT STRATEGY 2

Warren and McKiernan (1995: 426) quoted by Ngulube (2002: 65) point out that access to IK collected so far is very limited because it is not well organized in terms of being indexed and abstracted. This adds to it being underutilized in development projects. The lack of marketing strategies also account for the low level of use of IK. The problem of access to IK is compounded by a lack of standardized indexing terms and by inconsistent indexing policies. The use of a controlled vocabulary like "thesauri and other controlled

lists of keywords, ontologies, classification systems, clustering approaches, taxonomies, gazetteers, dictionaries, lexical databases, concept maps/spaces, semantic road maps etc" can facilitate the organization of IK in information retrieval systems (Ngulube, 2002: 66). As suggested by the International Symposium on Indigenous Knowledge and Sustainable Development held in September 1992 at the IIRR in the Philippines, specialised community-based and centre-based (information centre) thesauri for cataloguing IK must be made (Ngulube, 2002: 66).

Ngulube (2002: 66) says that the use of knowledge representation systems like thesauri are important in organising and retrieving recorded IK, which tends to be multidisciplinary in nature. The use of a thesaurus will go a long way in aiding authors and publishers to make information more accessible by providing indexing information that uses controlled vocabulary or terms from a thesaurus, or by rendering other linguistic assistance to searchers and readers. According to Ngulube (2002: 66) controlled vocabularies facilitate knowledge management and systematic access to knowledge systems and that is why they are increasingly becoming one of the major tools for organising and managing information from a variety of sources.

3.9.3 IK MANAGEMENT STRATEGY 3

Library and information professionals should play a leading role in the compilation of annotated bibliographies that are descriptive and evaluative. These bibliographies can be very useful in informing readers of the relevance, accuracy and quality of the IK held in various national information resource centres. Bibliographies eliminate chaos, disorganisation and inapplicability of miscellaneous contributions to knowledge systems (Ngulube, 2002: 66).

3.9.4 IK MANAGEMENT STRATEGY 4

Another strategy that would help to ensure the management and preservation of IK is the application of marketing principles to IK. This would facilitate the utilisation of IK as well as the production of user-oriented rather than producer-oriented services. As Ngulube (2002: 67) noted, development projects still appear to make little use of IK and in order to enhance its utilisation, people need to be made aware of its existence. Ngulube (2002: 67) in support of the previous statement argues that the use of IK is largely dependant on, and is accelerated by, the knowledge of its existence and access to it. This therefore means IK should be marketed in order for it to be used.

3.9.5 IK MANAGEMENT STRATEGY 5

Information professionals are required to ensure the longevity of the documented IK by devising preservation strategies. A discouraging factor in the management and preservation of IK is that its collectors are usually more concerned about its immediate utility which causes them to allow the selection of the media for capturing IK to be dictated by circumstances and convenience of collection, rather than by long term implications of the storage media for the preservation of IK. The storage of IK is not limited to text documents or electronic formats, but could include cassette tapes, films, story telling, gene banks, CDs, DVDs, video and others (Ngulube, 2002: 67).

3.9.6 IK MANAGEMENT STRATEGY 6

An important strategy to successful management and preservation of IK is that qualified knowledge managers be given the duty to manage it. Kaniki and Mphahlele (2002: 1) noted that key resources in organisations require managers to facilitate their generation, distribution and use. This, they say, is because if not appropriately managed, resources can be misused and thus depleted. They support this by pointing out that collecting and categorising knowledge, establishing knowledge-oriented technology infrastructure and monitoring the use of such knowledge are some of the tasks that knowledge managers should perform.

3.9.7 IK MANAGEMENT STRATEGY 7

Knowledge managers dealing with IK have to identify and use effective motivators and motivating techniques to facilitate knowledge sharing. Kaniki and Mphahlele (2002: 9) suggest that holders and generators of all types of information including IK must be assured that they will be appropriately compensated, rewarded and/or recognised for their knowledge. Kaniki and Mphahlele (2002: 9) say that information and knowledge in themselves are not useful unless they are applied to specific situations. They continue to say that access to knowledge, while important, is not sufficient. To be useful and profitable, knowledge must be applied. The IK managers may have access to IK holders, but if the person with the IK does not share it then the knowledge is, in effect, irrelevant.

3.9.8 IK MANAGEMENT STRATEGY 8

IK can be managed and preserved by being done continually. The continuous management and preservation of IK ensures that new knowledge unknown by managers is discovered adding to the already collected knowledge. Kaniki and Mphahlele (2002: 3) suggest that continuous management of knowledge is necessary because new problems and situations arise and require new solutions. This means that there is therefore no stage when knowledge is fully managed.

3.9.9 IK MANAGEMENT STRATEGY 9

Another strategy for the management of IK is that since it has often been marginalised, and at times treated with suspicion or simply ignored, mechanisms to recognise its usefulness must be put in place. Davenport (1998) as quoted by Kaniki and Mphahlele (2002: 10), suggest that in order to recognise the usefulness of anything in society and thus warranting the allocation of resources to it is, firstly, raising awareness about the issue. This means IK managers have a duty to raise awareness about the usefulness and importance of IK. This then can open doors for financial assistance and any other necessary assistance to support the management of IK. Such practices can help persuade even development professionals and scientists that IK is an invaluable resource that must be taken seriously.

3.9.10 IK MANAGEMENT STRATEGY 10

The use of the community language would be central to the management and preservation of IK. Abbott (2002: 227) suggests that if a community loses its language and changes to another language, they not only would be losing a unique system of man-made symbols but also all the IK that the language carries with it. Abbott (2002: 227) says that language as culture is the collective memory bank of a people's experience in history. Suggestions here are that:

- The local language should be used as the working language in all management of IK processes. Interpretation can then be done to disseminate to those who do not know the language. This means records should also be kept in the community's own language.

- Orthography for the recording of such transactions must be made available.

- Reading matter which is culturally familiar and suitable like folk-tales and practical advice on food storage and hygiene should be produced.

- IK managers should operate in the community language (Abbott: 2002: 227).

3.9.11 IK MANAGEMENT STRATEGY 11

Although tacit IK is largely experiential and contextual, it can be managed. Ngulube (2003b: 21) asserts that although all knowledge is tacit, it can be articulated both tacitly and explicitly through artefacts that the indigenous people produce (traditional technologies), music, story-telling and use of the Socialization, Externalization, Combination and Internalization (SECI) knowledge management model. The SECI model links tacit and explicit knowledge through socialization, externalization, combination and internalization. This means knowledge creation entails converting tacit knowledge into explicit knowledge and back again (Ngulube, 2003b: 21). To explain the SECI knowledge management model Ngulube (2003b: 21) begins by saying that knowledge can change from tacit to tacit through the process of socialization. This could happen through face-to-face conversations, social interaction, story-telling, music and dance. Knowledge can also be converted from tacit to explicit through the process of externalization. This happens when a person holding tacit knowledge puts it down in any secondary form, (that is a document or image or rock painting or clay pot), where another

can retrieve it even in the absence of the person holding it. The externalization of IK is evident in the indigenous technologies and artefacts. The change from explicit to explicit occurs when a secondary form of knowledge is used to make another secondary form and it is called combination. Lastly, the knowledge can be converted through internalization, which is a process of converting explicit knowledge to tacit, for instance, when external knowledge from documents, databases and artefacts is used to create new knowledge for a person that can also be transferred to others. The process of internalisation is fundamental to ensuring that explicit knowledge does not become obsolete and irrelevant (Ngulube, 2003b: 22).

From the SECI model of Nonaka and Tekaeuchi, quoted by Ngulube (2003b: 22), it is evident that tacit indigenous knowledge could be managed using the same model. Ngulube (2003b: 22) suggests that knowledge workers could manage the processes of conversion and documentation as well as the communication of IK through the exploiting of some of the ways that indigenous societies used to preserve knowledge such as music and dance, artefacts and technology, and storytelling.

3.10 IK AND INTELLECTUAL PROPERTY RIGHTS (IPRs)

As has been repeatedly stressed, IK is now widely recognised as having played, and is still playing, crucial roles in economic, social and cultural life and development, not only in traditional societies, but also in modern societies. It is now recognised as being a precious resource that is critical to the future development or even survival of humankind. As IK becomes more significant, fears have grown that populations who have been responsible for developing and preserving- the knowledge will lose them to unscrupulous "outside operators" asserts Ngetich (2005: 7). The rights of IK holders for their knowledge, to the use of their knowledge and to the products arising from such use must also be recognised. The misappropriation of IK holders' resources, their knowledge or the products of their knowledge, would not only violate their rights, but also adversely affect the conservation and use of the knowledge as the IPRs obtained by corporations and their institutions may erode the community's rights to continue using their resources or to continue with their traditional practices (Khor 2002: 15-16). This has resulted in

many policy analysts advocating the use of IPRs to protect the rights of the knowledge owners to their indigenous resources (Ngetich, 2005: 8).

The World Bank asserts that prior to 1992, IK and resources were seen as the common heritage of mankind. There were no international laws regulating access to genetic resources. As a result, there was an increase in the commercial use of the knowledge and biological resources of indigenous peoples. The rapid depletion of environmental resources and the need to reward both users and providers, gave rise to the Convention on Biological Diversity (CBD) which for the first time acknowledged the value of IK. It established a framework for providing access to genetic resources and a means for fair and equitable benefit sharing (World Bank, 2002: 1).

IPRs are a means of acquiring ownership over a particular resource that is intangible in nature. It usually involves the protection of some form of invention created by the human mind. This includes a wide variety of creations, ranging from new music, novels, drugs, to computer software and products obtained from the use of IK (World Bank, 2002: 1). The IDRC publication (undated: 1) defines IPRs as mechanisms to protect individual and industrial 'inventions' and are usually in effect for a specified period. These legal rights can be attached to information if the information can be applied to making a product that is distinctive and useful. Legal rights prevent others from copying, selling, or importing a product without authorization (IDRC, undated: 1).

The CBD introduced the notion of IPRs as a strategy for conserving biodiversity by granting countries sovereign rights over their resources. This was complemented by the Agreement on Trade-Related Intellectual Property Rights (TRIPS) into the mainstream of the World Trade Organisation (WTO) system which established new disciplines for many countries in patents, copyrights, geographical indications, trademarks and industrial designs. The main objective of the agreement is to create an international standard for minimum (IPR) protection (World Bank, 2002: 1). Ngetich (2005:8) defines IPRs as basically a mechanism to allocate ownership of knowledge and distribute benefits from it

among competing claimants. Proponents of IPRs seek to resolve three types of dilemmas that become prominent as the value of IK grows: ethical, managerial and preservationist.

According to Ngetich (2005: 8) ethical dilemmas arise because IK resources lie mainly in marginal environments and are often threatened with extinction. The managerial issue relates to the question of creating ownership rights over IK resources that will ensure appropriate rewards to innovators, and thereby maximize future innovations. The concern is based upon the belief that the increasing poverty of indigenous populations is leading them to undertake activities that erode biodiversity. If, therefore they receive material benefits in exchange for their stewardship of genetic materials, the decline would be halted. IPRs, therefore can simultaneously satisfy the ethical and managerial dilemmas created in the extraction of indigenous medical resources because once indigenous populations possess formal ownership rights, they should be able to negotiate rules of access and use, fees, and royalties with other interested parties (Ngetich, 2005: 8). Preservationist issues arise in terms of long term management and protection of existing IK resources. The guarantee of ownership rights to indigenous peoples would also safeguard the future of IK, thus helping to resolve preservation issues. This is because as beneficiaries and owners of IK, the indigenous people will strive to protect IK resources (Ngetich, 2005: 8). This argument applies to medical resources but it could just as easily apply to other IK resources.

IPRs are supposed to help protect investment into research, development and stimulate innovation by providing incentives to invest, progress and develop others (Shah, 2002: 1). Large transnational corporations like Monsanto, DuPoint and others have been investing in biotechnology in such a way that, without the IK holders' knowledge or consent, patents have been taken out on indigenous plants which have been used for generations by the local people. The people then find that the only way to use their age old knowledge is to buy it back from the big corporations. An example is that of Brazil which has some of the richest biodiversity in the world, large multinational corporations have already patented more than half the known plant species (Shah, 2002: 1-2).

The United Nations Draft Declaration on the Rights of Indigenous Peoples underscores the fact that indigenous peoples have the right to own and control their cultural and intellectual property pertaining to their sciences, technologies, seeds, medicines, knowledge of flora and fauna, oral traditions, designs, art and performances (United Nations, n.d.: 6). The Economic Commission for Africa recommends that "oral traditions and IK in African communities should be exploited in all their forms of expression, giving cognizance to the protection of intellectual property rights" (United Nations, 2001: 2).

3.11 PROBLEMS RELATED TO IK AND IPRs

The individualistic nature of IPRs creates several complications, when applied to local communities and they are as follows:

- IPRs fail to take into account the fact that communities where IK is found have a holistic approach to their environment and find it difficult to separate the resources from which their livelihood stems into distinct economic and social assets. This leads to another critical problem. It is difficult to define an innovation and a beneficiary in local communities, given the need to prove novelty and non-obviousness. This is because in most indigenous communities, knowledge is acquired over time and passed on from one generation to the next. Through this process it keeps evolving and changing in character. Therefore it is difficult to establish when such knowledge was actually discovered and when it entered the public domain (World Bank, 2002: 2).

- IK is being developed by being shared amongst members of the community such as the elders, who have the wisdom of years of experience which adds further value to knowledge. This makes it the public domain of the community and therefore fails to meet the non-obviousness criteria of a patent. It gets more complicated to identify the inventor if an entire community is involved in the evolution of the IK. This problem is further complicated in cases where the same IK is used by different communities across the world (World Bank, 2002: 2).

- In patenting IK there is a need that it be documented. Most IK is passed from one generation to another through oral traditions and not written records (World Bank, 2002: 3).

- There is also controversy surrounding IPRs concerning the protection of local plant species. The Trade Related Intellectual Property Rights (TRIPs) agreement states that members may exclude from patentability "plants and animals other than micro-organisms and essentially biological processes for the production of plants and animals other than non-biological and microbiological processes…" (World Bank, 2002: 3).

- Another key concern shared by indigenous peoples worldwide is that the present intellectual property rights regime favours multinationals and other non-indigenous interests. Where IP protection may apply, the prohibitive cost of registering and defending a patent or other IPR effectively limits its availability to the vast majority of indigenous communities, primarily in developing countries. In this way, the existing IPRs regime is seen to help corporate interests and entrepreneurs lay claim to IK without appropriate acknowledgement or compensation for the communities who have developed that knowledge (Simeone, 2004: 2).

- An IPR approach is unacceptable to many indigenous groups. For indigenous peoples, life is a common property which cannot be owned, commercialized and monopolized by individuals. Accordingly, the patenting of any life form and process is unacceptable to indigenous peoples (IDRC, undated: 8).

3.12 POSSIBLE SOLUTIONS TO THE PROBLEMS RELATED TO IPRs

After looking at the problems related to IPRs some possible solutions have been made by the World Bank (2002: 3).

- There has been a suggestion that patent laws be modified to ensure that all patent applications disclose the country of origin of biological materials and IK used to develop the invention.

- To prevent IK that is already in the public domain from being patented as a new invention in another country, it is vital to provide written documentation of such practices. In this way indigenous communities can challenge patents being granted to others for practices that are traditionally their own (World Bank, 2002: 3).

- The creation of national, regional and international registries of IK could support benefit sharing among industry and local communities. They could support IPR-related measures such as strengthening traditional knowledge's status as prior art, enabling defensive publications.

- There are other possible mechanisms for establishing IPRs over IK and resources. These include the use of geographical indications (place names or words associated with a place to identify the origin, type and quality of a product. These are unique in their ability to reward collective traditions while allowing for evolution. They emphasize the relationships between human cultures and their local environment and can be maintained as long as the collective traditions survive. It is immaterial whether the inventor is an individual, family or large corporation.

- Other forms of protection include copyrights and trade secrets. Copyrights are often used to protect traditional folklore from unauthorised duplication. The World Intellectual Property Organization (WIPO) has protected folklore from different parts of the world as copyrights. Trade secrets are a means of protecting confidential information that can give others, such as a business firm, a competitive advantage. Trade secrets could be an effective way of protecting IK in that local communities could restrict access to their territories and information to outsiders through agreements that secure confidentiality and economic benefits. Such practices have been initiated in countries such as Ecuador with the support of the Inter-American Development Bank (World Bank, 2002: 3).

IPRs can provide an effective means of protecting IK, its systems and plant varieties. Documenting IK in writing which can then be used to challenge a patent claim is very important (World Bank, 2002: 3).

3.13 INTERNATIONAL INITIATIVES TO PROTECT IK

The importance of protecting and preserving IK has been recognised in several international instruments, including the Universal Declaration of Human Rights, the Convention on Biological Diversity, the Draft United Nations Declaration on the Rights of Indigenous Peoples, the International Labour Organisation Convention No. 168 and the International Covenant on Economic, Social and Cultural rights (Simeone, 2004: 3).

The Rio Declaration (known as Agenda 21) and the Convention on Biological Diversity adopted at the 1992 Earth summit in Rio de Janeiro, Brazil, emphasize the need for governments to "respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities" and encourage the right of traditional communities to share in the economic and social benefits arising from the utilisation of such knowledge, innovations and practices (Simeone, 2004: 4).

A number of United Nations agencies are also involved in addressing the protection of IK under the existing intellectual property rights system and they are as follows:

- World Intellectual Property Organization (WIPO)

The WIPO is a specialized United Nations agency responsible for the worldwide promotion of the IPRs of innovators and creators. It is responsible for various activities promoting the protection of indigenous intellectual property system in protecting IK (Simeone, 2004: 4). One of the activities is that in an attempt to identify the concerns of IK holders, the WIPO's Global Intellectual Property Issues Division has organized, since its creation in 1998, several regional roundtables, meetings and consultations and has conducted fact-finding missions to 28 countries, including Canada (DFAIT, 2003:1).

- The World Trade Organization's Trade related aspects of Intellectual Property Rights (TRIPS)

TRIPs is a key international agreement promoting the harmonisation of national IPR regimes. Although TRIPs covers four types of IPRs; patents, geographical indications, undisclosed information (trade secrets) and trademarks, it does not

acknowledge or distinguish between indigenous, community-based knowledge and that of industry. Furthermore, it makes no reference to the protection of IK (Ngetich, 2005: 3).

- Convention on Biological Diversity (CBD)

CBD is the only major international convention that assigns ownership of biodiversity to indigenous communities and individuals and asserts their right to protect this knowledge (Ngetich, 2005: 3). It has the objective of promoting the conservation and sustainable use of biological diversity and ensuring the fair and equitable sharing of the benefits arising out of the use of genetic resources. One component of the implementation of this convention involves the respect, preservation and maintenance of the knowledge, innovations and practices of indigenous and local communities concerning the conservation and sustainable use of biological diversity (DFAIT, 2003: 1).

- The United Conference on Trade and Development ((UNCTAD)

UNCTAD is another international organization that has also contributed to IK and IPRs discussions. UNCTAD among many activities, sponsored a meeting of experts in November 2001 and co-hosted with the government of India a seminar in April 2002 to discuss the various strategies available to protect IK, practices and innovations, including the application of IPRs.

- The United Nations Educational, Scientific and Cultural Organization (UNESCO)

Among the diverse activities and programmes developed in relation to indigenous peoples within UNESCO'S various sectors, the Local and Indigenous Knowledge Systems (LINKS) programme is aimed at empowering local and indigenous people in various aspects of environmental management by advocating recognition and mobilisation of their unique knowledge. It also contributes to the safeguarding of traditional knowledge within indigenous communities by reinforcing their inter-generational transmission.

The above paragraphs have highlighted the contributions made by several international instruments in an attempt to protect and preserve IK. The following will deal with IK and inter-library lending.

3.14 INDIGENOUS KNOWLEDGE (IK) AND INTER-LIBRARY LENDING (ILL)

The realisation of the need for IK management is continuing to increase at an even faster rate than anyone would expect among the people around the world and Swaziland is no exception. At the same time, expenses associated with acquiring, processing, storing and retrieving the material will continue to increase at a faster rate than the library and information centres' budgets. Library and information centre budgets are shrinking and these institutions are unable to cope with the flood of knowledge required by their users. Usually, knowledge is needed by different types of users including illiterate, semi-literate, those who can only understand their local languages such as siSwati in the case of Swaziland, those who can read and write siSwati but cannot understand English, the blind, who cannot read unless information is written in braille. The diversities brought about by the target population, puts a challenge on the budget. In order that the different types of users are satisfied with the services, there is a need for knowledge to be shared or exchanged among the libraries or information centres. A saying, "No library can be an island" means no library or information centre, no matter how large, can have every item that might be needed by its users. Therefore cooperative arrangements in the form of ILL are necessary.

The following discussion has been taken from the State Library of Louisiana (2004: 1), to discuss the processes involved in ILL:

- Inter-library lending is a process in which library materials are made available by one library to another. This could be copies or substitutes for loans of the original materials. ILL or resource sharing maximises the availability of materials and services, and minimizes the expenses. The emphasis for ILL is on access to the relevant knowledge rather than possession. Effective ILL depends on the availability of appropriate communications, technology, and delivery systems, i.e. union catalogue which helps in locating material quickly and conveniently. The purpose of ILL is to obtain upon request of a library user, materials not available in the user's local library at which the user has borrowing privileges (State Library of Louisiana, 2004: 1).

In linking the above discussion to IK, one can note that as mentioned earlier, no library can claim to have all relevant resources required by its users including IK. ILL therefore closes the gap of shortage of finances to acquire all necessary resources. ILL does not relieve any library of the responsibility of developing its own collection (State library Louisiana, 2004:1). This simply means that all libraries or information centres must put in effort in ensuring that they collect as much IK as possible in an effort to ensure that users' needs are satisfied. The libraries can then seek assistance if their collection does not have certain IK required by users at that time.

3.15 RE-PACKAGING OF IK

The repackaging of the collected IK is important to ensure that the collected IK is profitably used by the targeted population. The issue of repackaging will be briefly discussed before summarising this chapter.

Repackaging is the process of selecting the appropriate material, re-processing the information in a form that can be readily understood, packaging information, and arranging all these materials in a way that is appropriate to the user (Bunch, 1984: 25). Repackaging of information is an ongoing process in libraries and includes activities like abstracting and indexing, selective dissemination of information and other forms of current awareness services, all of which are attempts to provide the available information in an acceptable and usable format (Boadi, 1987: 4). Disseminating information for the benefit of users can not be fully achieved by simply establishing libraries without taking into consideration the fact that for information to be beneficial, it must be interpreted and converted into a form that the end user can both understand and assimilate.

The characteristics of IK include that it is expressed in local languages (Langill, 1999); therefore difficult to transmit to those who do not share the language, tradition and cultural experience (SARDC, n.d.: 95), and that it has been transmitted orally from generation to generation and therefore not systematically documented (Raseroka, 2002: 6). These are indications that IK needs to be repackaged for effective and wider use.

3.16 SUMMARY OF THE CHAPTER

This chapter has discussed IK, its characteristics, sources of IK, reasons for the destruction of IK, the management of IK, reasons why IK needs to be managed, challenges in the management of IK, management strategies that can be used for IK, IK and IPRs, problems related to IK and IPRs, possible solutions to the problems related to IPRs, international initiatives to protect IK, IK and ILL and finally repackaging. These topics were covered because they are related to the research questions of this study. As mentioned earlier a literature review displays relevant existing literature on the subject in focus.

Most of the literature consulted by the researcher of this thesis concludes that IK has been looked down upon and the reason for this is that western knowledge was thought to have all the answers to humanity's problems. Things are now changing because it is slowly becoming clear that IK is important and indigenous people hold a wealth of knowledge and experience that represents a significant resource in the sustainable development of society (Ngulube, 2002: 95).

CHAPTER 4: RESEARCH METHODOLOGY

4.1 INTRODUCTION

This chapter discusses the methods used to investigate the management of IK in Swaziland, by the SNL, the SNA, the SNM and the UNISWA Library. This research adopted the qualitative approach. Qualitative research according to Babbie and Mouton (2007: 270), is the generic approach in social research, according to which research takes, as its departure point, the insider perspective on social action. Babbie and Mouton (2007: 270) continue to state that qualitative researchers always attempt to study human action from the perspective of the social actors themselves. Qualitative studies will typically use qualitative methods of gaining access to research subjects, (for example, theoretical selection of cases, snowball sampling); qualitative methods of data collection (for example, participation observation, semi-structured interviewing, the use of personal documents to construct life stories) and qualitative methods of analysis (for example grounded theory approach, analytical induction, narrative analysis and discourse analysis (Babbie and Mouton, 2007: 270). The researcher of this particular study used semi-structured interviews, with the help of a tape recorder to collect the required data.

4.2 RESEARCH METHODOLOGY

Research methodology consists of the methods, techniques and procedures that are employed in the process of implementing the research design or research plan, as well as the principles and assumptions that underlie their use (Babbie and Mouton, 2007: 647). "Research methodology focuses on the research process and the kind of tools and procedures to be used, the point of departure and specific tasks (data-collection or sampling) at hand" say Babbie and Mouton (2007: 75). According to Terre Blanche, Durrheim and Painter (2006: 6), methodology specifies how researchers may go about practically studying whatever they believe can be known.

In order to establish how IK was managed by the four institutions in focus, it was necessary to study how IK is collected, organised, stored/preserved and disseminated by

these institutions. The practices found to be prevalent among the institutions could then be said to be the ones used in the management of IK in the institutions.

The survey method was used to collect data on the institutions. Kothari (1990: 149) states that surveys are concerned with describing, recording, analyzing and interpreting conditions that exist or existed. Only institutions that deal with the management of IK were selected because they are relevant in satisfying or giving a relevant response to the research questions (see population below). It was anticipated that the research would reveal views, perceptions, interpretations and experiences of both the people working directly with the management of IK and the institution's managers namely the two Directors, the Librarian and the Curator.

4.3 POPULATION AND SAMPLING

According to Bless and Higson-Smith (2000: 84), the population of a study refers to a set of objects, whether animate or inanimate, which are the focus of the research and about which the researcher wants to determine some characteristics. Sampling is the selection of the specific research participants from an entire population, and is conducted in different ways according to the type of study. Sampling involves decisions about which people, settings, events, behaviours, and/or social processes to observe. The main concern in sampling is representativeness. The aim is to select a sample that will be representative of the population about which the researcher aims to draw conclusions (Terre Blanche, Durrheim and Painter, 2006: 49).

This study focused on the management of IK in Swaziland by the four institutions. In determining whether to include these institutions the researcher adopted a purposive or theoretical sampling method. According to Mason (2002: 124):

> Purposive or theoretical sampling means selecting groups or categories to study on the basis of their relevance to your research questions, your theoretical position and analytical framework, your analytical practice and most importantly the argument or explanation that you are developing. Theoretical or purposive sampling is concerned with constructing a study group, which is meaningful

theoretically and empirically, because it builds in certain characteristics or criteria, which help develop or test your theory or your argument.

This study included the four institutions because they are all covered by the legal deposit law, which enables them to collect everything produced in the country (Swaziland) and this includes IK. Although there are other institutions that manage IK in Swaziland like the Swaziland Information and Broadcasting Services and the Swazi Society, they were not part of the study because they are not covered by the legal deposit law.

The units of analysis were drawn from these four institutions and included all staff (librarians, assistant librarians and others) dealing with the management of IK in the institutions. There were 11 such members of staff and all 11 were interviewed. Furthermore the Assistant Director of the SNLS, the Director of SNA, the Librarian at the UNISWA Library, and the Curator of SNM, who are the administrators of their institutions, were interviewed to determine issues relating to policies of IK management, financial resources and staffing. It was strongly believed that the above respondents would be able to provide a clear picture concerning IK management in the four institutions and by so doing provide the necessary data to respond to the research questions.

4.4 DATA COLLECTION METHODS

Data are the basic material with which the researcher works. Data come from observation, and can be in the form of numbers (quantitative data) or language (qualitative data). It is essential that the researcher has data that captures the meaning of what is being observed (Terre Blanche, Durrheim and Painter, 2006: 51). For this particular study, methodological triangulation was used to collect data. According to Terre Blanche, Durrheim and Painter (2006: 287), triangulation entails collecting material in as many different ways and from as many diverse sources as possible. The authors (2006: 287) continue to show the usefulness of triangulation when they say that, triangulation helps researchers to 'home in' on a better understanding of a phenomenon by approaching it from several different angles. In terms of triangulation for the present

study, the participants were interviewed using semi-structured interview schedules. Secondly, the researcher then spent some time observing the participants in the four institutions of study while they went about their work. The researcher was observing if any of the strategies for collecting IK were really used as claimed by those dealing with the management of IK. The types of data collection tools will now be discussed to highlight their advantages and disadvantages.

4.4.1 SEMI-STRUCTURED INTERVIEWS

A survey research interview is done to obtain accurate information from another person (Neuman, 2006: 304). An interview according to Neuman (2006: 305),

> is a short term secondary social interaction between two strangers with the explicit purpose of one person obtaining specific information from another. Information is obtained in a structured conversation in which the interviewer asks pre-arranged questions and records answers as the respondent answers". The interview is considered one of the most powerful ways in which human beings try to understand their fellow human beings (Cohen, Manion and Morrison, 2000).

Semi-structured interviews are used to collect people's ideas, opinions and accounts of their experiences. They are not concerned with obtaining coded answers to certain questions. They allow the participant the freedom to answer questions and the researcher more freedom in the way s/he asks questions. A semi-structured interview schedule involves a set of questions, which are phrased in such a way as to allow a participant to answer relatively freely in line with the questions asked. Different types of questions can be used such as open and closed questions (Fontana and Frey, 2000: 652). The following are advantages of interviews in general and semi-structured interviews in particular:

- Interviews have the advantage of being interactive in nature, a characteristic that questionnaires lack. This nature of an interview is advantageous in that if there are questions that the respondent does not understand, they can be clarified straight away by the interviewee (Bailey, 1978: 175).

- Interview surveys are believed to typically attain higher response rates than mail surveys. This according to Babbie and Mouton (2007: 250) is because respondents seem more reluctant to turn down an interviewee standing on their doorstep than throw away a mailed questionnaire.

- Interviews are normally flexible in that they provide an opportunity to probe and ask follow up questions during the interview if something is not fully explained (Bailey, 1978: 175).

In the present study the interview schedule for the staff dealing with the management of IK consisted of 26 questions, whereas the interview schedule for the administrators was shorter with 15 questions (see Appendix 3). The questions used in the interview schedules were open ended.

Some of the interviews in this study were recorded on tape (with the permission of the interviewees) in order to capture the exact words of the interviewee to prevent loss of data. The interviews were administered face-to-face and were based on questions in the interview schedule. This approach, though it required knowledge and general direction, greatly allowed for informality and consequent flexibility in adapting questions to the actual answer given by the participant. The same questions were asked of all the respondents but due to the flexibility that the interview provides, the researcher was able to, where necessary, clarify questions and probe responses.

4.4.1.1 EVALUATING THE INTERVIEW SCHEDULE

Before pre-testing the interview schedule, the researcher of this study sought expert opinion regarding the validity of the questions. The draft interview schedule was distributed to a librarian who has experience in managing IK, a professor who is also knowledgeable on issues of IK through research he has done and finally, to a person who has a lot of traditional knowledge and is also a radio programme presenter on IK. Their suggestions were noted and some changes were made on the second draft which was pre-tested.

4.4.1.2 PRE-TESTING THE INTERVIEW SCHEDULE

Pre-testing a data collection tool is important to assess whether the "line of questioning" is appropriate and whether the tool is understandable and simple to use (Newell, 1993: 112). The interview schedule was pre-tested on three colleagues who had knowledge of IK to afford the researcher the opportunity to identify questions that could be misunderstood by the respondents, ambiguous questions, questions that did not obtain the desired information, poor instructions to questions, unnecessary questions, missing questions and to find general reactions to the questions (Babbie and Mouton, 2001: 119). The first colleague has been working in the SNL supervising the management of IK for more than four years, but has now transferred to another department. The second colleague has done a study on the management of IK in Swaziland in the year 2005 and the last colleague did a paper on IK management whilst studying at the University of KwaZulu-Natal. The contributions the colleagues made (for example ambiguous questions were reformatted and questions found to be irrelevant to IK management were deleted) resulted in the final interview schedule which was then used to collect data.

4.4.1.3 ADMINISTERING AND RECORDING THE INTERVIEWS

The researcher of this study first wrote letters (see appendix 2) to the Directors, the Librarian and the Curator seeking permission to conduct the study in their institutions. Permission was granted in all instances. The interviews were conducted in quiet rooms where there were no distractions and they lasted between 20 to 45 minutes. The researcher wrote down the responses of the interviewees who did not want to be recorded on tape on the interview schedules. As noted above, the researcher recorded some of the interviews on tape. Terre Blanche, Durrheim and Painter (2006: 307) suggest that the interviewer should try to re-create the session while it is still fresh in their minds. This process enables the researcher to reconstruct the content of the tape and the process of the session in a fairly reliable way. After every recording, the interviewer would create time to listen to the content of the tapes and write it down on the interview schedules.

An advantage of recording interviews as mentioned by Terre Blanche, Durrheim and Painter (2006: 309) is that tape recorders capture the exact words of the conversation,

which can not be done easily when writing whilst interviewing. A disadvantage to recording is that some interviewees act or perform for the tape and in the process some truths or useful information is left out (Terre Blanche, Durrheim and Painter, 2006: 309).

4.4.2 OBSERVATION

As noted above, observation was also used as a data collection tool. Observation according to Terre Blanche, Durrheim and Painter (2006: 307) takes place while things are actually happening, and thus gets the researcher even closer to the action. Advantages of observation in research as stated by Neuman (2003: 381-383) are as follows:

- The researcher collects observed information rather than data relating to intentions and preferences.
- Reduction or elimination of recall error.

A disadvantage of this type of data collection tool is that people being observed usually start behaving very differently (Babbie and Mouton, 2007: 271). To ensure that this did not happen in this study, the researcher followed the advice of the above authors (2007: 271):

> A qualitative researcher should attempt to become more than just a participant observer in the natural setting that is being investigated, but must also make a deliberate attempt to put him/herself in the shoes of the people being observed and studied and try to understand their actions, decisions, behaviours, practices, rituals, and so on, from their perspective.

Observation in this study was done both during and after the individual interviews. During the interviews, the researcher was able to observe the surroundings and the other staff members at work. In this regard, Neuman (2006: 301), points out that one advantage of the interview is that the interviewer also can observe the surroundings and can use nonverbal communication and visual aids. Once the interview had been completed, the researcher was able to observe the machinery used to manage IK, the displays for disseminating IK and the storage facilities at the different institutions. The researcher did the observation guided by the research questions (structured observation schedule

indicating what issues to look for). Issues observed were recorded immediately after each session.

4.5 VALIDITY AND RELIABILITY

In estimating the reliability of a test, one would be examining its viability as a measurement device. Thus reliability is the degree to which a test consistently measures what it sets out to measure, while at the same time, yields the same results (Babbie and Mouton, 2007: 646). The authors (2007:647) say that reliability is that quality of the measurement method that suggests that the same data would have been collected each time in repeated observations of the same phenomenon. Validity is a term describing a measure that accurately reflects the concept it is intended to measure (Babbie and Mouton, 2007: 648).

For this particular study, the researcher, as noted above, pre-tested the interview schedule with colleagues who have knowledge of IK and its management before going into the field. To ensure validity, questions were adjusted on the basis of the responses and comments received from the pre-test. The researcher also made sure that the questions asked related closely to the research questions.

Bless (2000: 126) defines reliability as concerned with the consistency of measures. Comparing the results from pre-testing and the real tests indicate that the study is, to some extent, reliable. According to Bless (2000: 126),"the greater the consistency in the results, the greater the reliability of the measuring procedure". For research to be reliable it must demonstrate that if it were carried out on a similar group of respondents in a similar context, then similar results will be found. The researcher of this study is of the opinion that there is nothing to suggest that the same results would not be obtained should the survey be repeated.

4.6 DATA ANALYSIS

Qualitative data are in the form of text, written words, phrases, or symbols describing or representing people, actions, and events in social life (Neuman, 2006: 457). A qualitative researcher analyses data by organizing it into categories on the basis of themes, concepts, or similar features. Instead of a clerical data management task, qualitative coding is an integral part of data analysis. It is guided by the research questions and leads to new questions (Neuman, 2006: 460). Neuman (2006: 460) defines data coding as the hard work of reducing large mountains of raw data into small, manageable piles. Strategies for the analysis of qualitative data are more diverse, less standardized and less explicitly outlined by researchers (Neuman, 2006: 467).

According to Miles and Huberman (1994: 82) qualitative data analysis methods include the display, reduction and interpretation of data. For this particular study, information from interview schedules and tape recordings was transcribed in response to the research questions. The data was manually processed using content analysis as the study population was small, namely a total of 15 respondents. Content analysis as defined by Neuman (2006: 322) is a "technique for gathering and analyzing the content of text. The text is anything written, visual, or spoken that serves as a medium for communication". To conduct a content analysis, a researcher identifies a body of material to analyze and then creates a system for recording specific aspects of its content. The system might include counting how often certain words or themes appear. After systematically recording what was found, the researcher analyzes it, often using graphs or charts (Neuman, 2006: 44).

According to Moore, (2000: 142), small surveys can be processed manually. After satisfying herself about having transcribed and recorded all the relevant data all the responses to a specific question were brought together. Data generated and analyzed was presented in the form of tables depicting frequencies and percentages.

4.7 SUMMARY OF THE CHAPTER

This chapter discussed the research methodology, the study population and sampling, data collection methods and their evaluation, the validity and reliability of the instruments and finally the analysis of data. As mentioned earlier, this research adopted the qualitative approach. The institutions that were studied were chosen because in addition to that they all manage IK, they are also covered by the legal deposit law in Swaziland. The presentation and interpretation of the collected data will be dealt with in the next chapter.

CHAPTER 5: PRESENTATION OF RESULTS OF THE STUDY

5.1 INTRODUCTION

The purpose of this chapter is to present and analyse all collected data in relation to the strategies used in the management of IK in Swaziland. This study, as indicated in the first chapter, has been conducted to find out how IK is being managed by the SNL, the SNA, the SNM and the UNISWA Library.

The study was conducted to provide answers to the research questions as set out in Chapter one. Data was colleted using interview schedules from the administrators of the institutions and from the staff dealing with the management of IK (Appendix 3). The analysis of data began by writing up the interviews, which were tape recorded. These transcriptions retained the original and actual words that were used by the participants in order to accurately reflect views, perceptions and attitudes. Where appropriate, data gathered through observation were added to the data generated through interviews. Results of the interviews are presented below.

INTERVIEWS

The four administrators were interviewed as well as 11 staff members dealing with the management of IK in the four institutions. The interviews produced a 100% response rate because all the administrators of the targeted institutions were interviewed as well as all the staff dealing with the management of IK in the four institutions. The high response rate can be attributed to the personal approach adopted plus the recognition by the participants of the importance of the topic. Appointments were made with all the respondents by the researcher and interviews were conducted by the researcher herself (and she was then able to explain any questions misunderstood by the respondents).

5.2 SECTION 1 OF THE INTERVIEWS: PERSONAL INFORMATION

The first section deals with personal information for both the administrators and the staff members dealing with the management of IK.

5.2.1 GENDER

The findings of this study show that the administration in the four institutions being studied was female dominated as all four respondents were female (100%).

The gender of staff members dealing with the management of IK was fairly evenly distributed as out of the eleven respondents, six were female (54.5%) and five were male (45.5%).

5.2.2 AGE

The second question was asked to establish the age of the respondents. The age of the administrators was evenly divided. Ages were between 41-50 for two respondents (50%) and another two respondents (50%) were between the ages 51-60. The age of the staff showed that eight of them were between the ages 41-50 (72.7%) as against three (27.3%) who were aged between 31- 40.

5.2.3 HIGHEST QUALIFICATION

Responses to the question of highest qualification attained revealed that all four administrators had master's degrees in one of the following fields: information studies, public administration and museum studies.

The highest qualification attained by the staff dealing with the management of IK revealed that one had a masters (MA) in Library and Information Studies, one had a Masters (MA) in Information and Knowledge Management, one with a Bachelor of Arts (BA) in Archaeology, two with BA Library and Information Studies , one with a BA in Heritage administration, one with a Postgraduate Diploma in Archive and Record Administration, one with a Diploma in Library and Information Studies, one with a

Diploma in Preventive Conservation, one with a Diploma in Museum Techniques and one with a Primary Teacher's Certificate.

In analysing the above results the following was compiled:

All four administrators had Masters in Library and Information studies (100%), whilst two of the staff members (18.18%) had Masters in their areas of study. Four staff members were Bachelor of Arts' holders, one a Post Graduate Diploma holder, three Diploma holders (27.27%) and one (9.09%) a Certificate holder.

5.2.4 POSITION HELD

The different positions held by administrators in the institutions were: two directors (50%), one curator (25%) and one librarian (25%). Although the positions held by the administrators were diverse they were all involved in the management of IK in their institutions.

Positions held by the 11 staff members dealing with the management of IK were also diverse. They included two education officers (18.18%), one photographer (9.09%), one librarian (9.09%), two senior library assistants (18.18%), one archivist (9.09%), one conservator (9.09%), two assistant librarians (18.18%) and one senior education officer (9.09%).

The study revealed that regardless of the different names of the positions held by the staff members dealing with the management of IK, they all worked towards the goal of managing IK.

5.2.5 DUTIES

A question asked the respondents to give a brief summary of the range of duties performed in their positions.

5.2.5.1 DUTIES PERFORMED BY THE ADMINISTRATORS WITH REGARD TO IK AND ITS MANAGEMENT

Duties performed by the administrators with regard to IK management included the supervision of staff engaged in the management of IK. The study revealed that because of staff shortages some administrators were forced to perform non-administrative duties. Duties they performed included the following:

- Supervising staff through the process of collection development, to service provision.
- Library management.
- Going out into the field to collect IK.
- Administration of cultural heritage, museums, monuments and sites.
- Identification and development of IK systems and conservation of cultural heritage.
- Documentation of oral history.
- Collecting and labelling of collected IK objects.
- Educating visitors or IK seekers.

5.2.5.2 DUTIES PERFORMED BY THE STAFF MEMBERS WITH REGARD TO IK AND ITS MANAGEMENT

The results of the study revealed that staff members had the following duties with regard to IK and its management:

- Education officers interview people about IK, and collect IK. After collecting IK, it is kept in audio-visual diskettes such as DVD and video cassettes as part of the museum collection. As custodians of culture they are also involved in the preservation of oral history and IK.
- The photographer takes culturally related photographs and files them.
- The librarian assists in research programmes, storage and dissemination.
- Senior library assistants are engaged in the acquisition of IK material, the processing and handling of documents and ensuring that IK is used efficiently because it is kept in closed access.
- The archivist is responsible for the management of archives, collection of oral history and IK. She also works with local schools by providing them with IK

which is required by the current International General Certificate of School Education (IGCSE) system.

- The conservator collects and documents IK collections. S/he also does research on Swazi authentic history which is in line with Swazi customs and beliefs (IK).

- Assistant librarians identify and interview people who are knowledgeable in IK. They are also responsible for collecting, organizing and disseminating IK.

- The senior education officer is overseer of the education department and is also involved in the collection of IK.

5.3 SECTION 2 OF THE INTERVIEWS: INDIGENOUS KNOWLEDGE (IK) MANAGEMENT

Section 2 of the interviews focused on IK management and the following was compiled:

5.3.1 STANDARDS OR SPECIFIED GUIDELINES FOR IK MANAGEMENT

This category related to questions dealing with standards and guidelines for IK management.

5.3.1.1 GENERAL STANDARDS OR SPECIFIED GUIDELINES FOR IK MANAGEMENT

A question which asked if there were set standards or specified guidelines for IK management in Swaziland generally, for example a collection development policy, revealed the same response from all administrators and staff dealing with IK management. All of the respondents (100%), stated that there were no set standards or specified guidelines for IK management in Swaziland.

5.3.1.2 SPECIFIC POLICIES WHICH GOVERN THE MANAGEMENT OF IK

A question was asked if were there specific policies in place in the institutions which govern the management of IK. The results revealed that two institutions had specific policies which govern the management of IK. One of the two institutions is the SNM which uses the Swaziland National Trust Commission Act No. 9, which was established

in 1972 (Appendix 5). The Museum was established through this Act. The Museum also uses the policies of institutions where they are a member. An example is that SNM is a member of the International Council of Museums, Monuments and Sites (ICOM). ICOM has a collection conservation policy which provides the ethics of collecting and preserving IK objects and what historical sites are used for.

The second institution which has a policy is the SNA which uses the Archives Act, 1971 (Appendix 6). The other two institutions (the SNL and the UNISWA library) do not have specific policies.

5.3.2 INTELLECTUAL PROPERTY RIGHTS (IPR) WHEN DEALING WITH IK

When administrators were asked if the institutions considered Intellectual Property Rights (IPRs) when dealing with IK, they replied that IPRs are considered. Although the Intellectual Property Bill which stipulates that the rights of IK holders be respected is still being formulated, the institutions are already aware of the Bill. All four respondents indicated that IPRs are considered by their institutions, which are aiming to ensure that the rights of the IK holders are respected and acknowledged.

The study revealed that the issue of IPRs is well understood by the staff members dealing with the management of IK. They respect the rights of the IK holders and they have taken some measures to acknowledge the sources of their IK. This means there is respect for IPRs among the staff members dealing with the management of IK in the four institutions.

5.4 QUESTIONS TO ADMINISTRATORS

The questions that follow were only directed to the administrators. Questions that were directed to the staff members will follow later.

5.4.1 ENSURING THAT STAFF MEMBERS WHO DEAL WITH IK, COLLECT, ORGANISE, PRESERVE AND DISSEMINATE IK EFFECTIVELY TO THEIR USER POPULATION

The study revealed that the administrators have taken different initiatives to ensure that the staff members who deal with the management of IK do their work effectively and the initiatives are as follows:

- The SNM trains the staff members on different skills and supports them with the necessary resources that are needed for IK management. It also organises cultural days and exhibitions to market the IK services it provides. Different forms of media like the local newspapers, national radio, local magazines and the institution brochures are used to market the IK related services to the general public. All necessary precautions that need to be in place to preserve IK related artefacts are taken by the institution. To ensure that the collected IK related artefacts are not stolen, the institution provides lockable display cabinets which allow viewing only, without the displays being disturbed or stolen. Regular meetings for administrators and staff members are held to discuss a way forward in IK management.

- The SNL staff members, who deal with the management of IK, are supported by being given first preference when requiring transport to where they intend to collect IK. They are also supported by having regular meetings and having access to all necessary resources for IK management like tape recorders, audio and video tapes. One staff member who has been dealing with the management of IK has been sent to further her studies concentrating on IK management.

- At the SNA, regular planning meetings are held by administrators and staff members dealing with the management of IK to enable an easy working environment and to be up to date with whatever is happening in the management of IK. Staff members dealing with IK are also trained on IK management. Transport is also provided to collect IK.

- To ensure that staff members, who deal with IK, collect, organise, preserve and disseminate IK effectively at UNISWA, the institution supports them in whatever new ideas they come up with in an effort to efficiently perform their duties.

5.4.2 CHALLENGES FACED BY STAFF MEMBERS WHEN COLLECTING, STORING, PRESERVING AND DISSEMINATING IK

The administrators were asked what challenges were faced by staff members who deal with the management of IK when doing their duties. The following challenges emerged:

- One institution, the SNL (25%) was faced with the challenge of constantly changing technology resulting in collected IK becoming redundant because the machinery that could access it was no longer functional.

- All four institutions (100%) were faced with the problem of limited funds to support IK management.

- Three institutions, the SNL, SNA and SNM (75%) cited long distances and the lack of proper roads to the homesteads of IK holders.

- The same three institutions (75%) indicated that IK holders are often sick because of their age (mostly very old). Staff members sometimes have to turn back without interviewing IK holders if they are not feeling well.

- Staff shortage is a challenge that all four institutions (100%) face. In order to collect IK efficiently it is necessary for one staff member to interview, one to write responses down (if recording is not done on tape) and maybe another to record on video. Staff shortages pose a problem which sometimes results in conversation only being tape recorded and not video recorded. This is a problem as some IK is best explained with supporting visuals. Sometimes the staff members fail to go out to collect IK if other members are away on a workshop or on leave. Transcription of collected IK is a very slow process which is also affected by staff shortages.

- Lack of incentives to encourage IK holders to share their knowledge causes IK holders to hoard their knowledge. This challenge is faced by the three institutions (75%) mentioned above.

- The Swazi people are known to greatly respect their IK. They believe that some things should not to be revealed to those who do not already know. They say that if you do not know about it, it shows that you are not a true Swazi, so communicating important knowledge to someone who is not Swazi is not safe. This applies to three institutions (75%). The IK holders then withhold some very important facts. In most cases, IK holders are traditionalists who believe that they should not allow someone to record their voices on tape. They only allow the staff members to write down whatever they are saying. This again was experienced by three of the institutions (75%).

- In the dissemination of IK, the staff members at the SNL (25%) are faced with various challenges. If the relevant machinery is no longer working, the users want to take the IK material like audio and video cassettes away with them for use in their homes or in their organisation. This is not safe because material may not be returned. Another challenge related to the dissemination of IK is that there are no audio visual rooms for the departments that have IK related services. Users complain because they are made to squeeze into the children's library to watch IK stored on video.

5.4.3 EFFORTS TO ADDRESS IK MANAGEMENT CHALLENGES

When asked what had been done to alleviate the challenges listed above the study revealed that the four administrators had taken it upon themselves to find solutions. The respondent (25%) from the SNL claimed to have presented the concerns to the senior management team. The concerns were being looked into and those that could be attended to quickly had already been identified and were being worked on. An action plan which included costs (for example, that of multi-media equipment) had been presented by the administration to the headquarters for consideration. A meeting had also been held with the minister responsible to present the concerns and challenges.

To meet the issue of lack of resources, one respondent (25%) indicated that the SNM sourced donor funding from organisations such as the Japanese International Cultural

Funding (JICF), UNESCO and the Swedish African Museum Programme to buy equipment such as computers to store and analyse the collected IK.

The SNA (25%) is in the process of requesting financial assistance from organisations such as Mitsubishi, for state of the art equipment and a request for more posts for IK managers has already been forwarded to the Swaziland Government.

The SNL (25%) asserts that to alleviate problems of untrained personnel, their staff members who are in library schools have been encouraged to specialize in IK management. Marketing the IK services helps people to understand the importance of keeping the IK material where everyone can have access to it instead of campaigning to take it home and lose it in the process.

5.4.4 SKILLS/SPECIAL TRAINING FOR STAFF MEMBERS RELATED TO THE MANAGEMENT OF IK

From the responses given by the administrators to the question: "Do you have any skills/special training in place for your staff related to the management of IK"?, one can conclude that two institutions, the SNM and the SNA had formalised training arranged for their staff members. At the SNA (25%), the staff members who have been trained in archives and records management already have the management of IK included in their training. They also attend workshops on traditional issues and IK organised by the University of Swaziland (UNISWA) and have attended a workshop on oral history in Pretoria in 2003. At the SNM there is special training for the staff related to the management of IK offered by the Swedish African Museum Programme which offers training in Museum studies and collections. There is also a programme the SNM staff members were to attend during the time of writing this thesis run by International Centre for the study of the Preservation and restoration of Cultural Property (ICCROM), a conservation body for museums in Rome, Italy, which assists African countries in the collection, documentation and preservation of IK and IK objects. The SNL (25%) mentioned that it has only recently sent one staff member dealing with the management of IK to specialise in IK management studies at an undisclosed university in South

Africa. The UNISWA Library (25%) does not have any special skills/training related to the management of IK for the staff members except the basic skill of managing information generally.

5.4.5 THE MAIN USERS OF THE IK SERVICES PROVIDED BY THE INSTITUTIONS

In response to the question concerning the main users of the IK services provided, the administrators of the four institutions mentioned a variety of groups of users, many of whom were similar. The main users of the IK services provided by the institutions consist of local and international researchers, the general public, students and teachers from local schools, tourists who are enthusiastic to know about Swaziland's cultural heritage, government officers, university students and traditional authorities. Table 1 below displays the findings to this question.

TABLE 1: MAIN USERS OF IK SERVICES

INSTITUTION	MAIN IK SERVICES USERS
Swaziland National Library	School children, university students, international and local researchers, traditional authorities, government officers, the general public and at a limited scale, teachers.
Swaziland National Archives	Teachers and school children from local schools, researchers and the general public
Swaziland National Museum	Teachers and school children from local schools, local and international researchers, international visitors.
The University of Swaziland Library	University students, the academic staff and researchers.

5.4.6 THE USAGE OF IK SERVICES

A question on the usage of IK services was asked in order to ascertain how the administrators rated the usage of the services provided by their institutions.

Two of the four administrators indicated that the usage of IK services was good (50%) and two (50%) considered the usage average. While the responses show that the administrators view the usage of the IK services to be between good and average, none of them viewed their services as very good. This is because they had observed some challenges in the management of IK which prevent the services from being rated higher.

5.4.7 ADDITIONAL COMMENTS BY ADMINISTRATORS ABOUT IK AND ITS MANAGEMENT

The administrators were asked if they had anything else to say about IK and its management. The question was asked in order to bring up anything useful about IK management that could have been left out of the interview. The administrators had a lot to say about IK management in their institutions. The administrators asserted that it is difficult to collect IK especially from outside the country and it is difficult to store/preserve because of special qualities of IK and its storage requirements. They added that a lot of IK can be collected with increased staffing with relevant qualifications. In addition to the above, they mentioned that there is a need for dedicated transport and the purchase of relevant equipment which would greatly enhance the collection and dissemination of IK.

Additional comments were that more training on the management of IK was needed in order for the institutions to conduct the management of IK efficiently and effectively.

The administrators assert that IK is a very important sector for development for any nation, more especially with the African countries who have lost so much of their IK. They felt that there was still a long way to go to ensure the documentation of IK.

To summarise the comments on IK the following table has been formulated.

TABLE 2: SUMMARY OF ADMINISTRATORS' COMMENTS ABOUT IK

COMMENTS ON IK	RESPONSES	PERCENT
Need for special training	2	50
Need to document IK	2	50
Need for increased staffing	1	25
Transport must be dedicated for IK management	1	25

5.5 QUESTIONS TO STAFF MEMBERS

The next section will be devoted to an analysis of the questions which were directed to the staff members dealing with the management of IK in the four institutions in focus.

5.5.1 AWARENESS OF IK AVAILABILITY

The question as to how they were alerted to the availability of IK was asked to find out how staff members dealing with the management of IK knew where they could get IK from. The responses to this indicated that staff members dealing with the management of IK are alerted to the availability of IK through different means. Six of the 11 respondents (54.54%) indicated that researchers ask for IK which is not available in the IK collections. This gives the staff members a challenge to find out who has that specific knowledge. Two (18.18%) of the staff dealing with the management of IK assert that they are alerted to the availability of IK by being alert, listening to the radio for ideas, watching television and also inquiring from other knowledgeable elderly people. When watching television news or listening to the national radio, their alertness helps the staff members identify IK availability. They then follow up on the information that they have picked from the media.

Four (36.36%) respondents indicated that they sometimes "take chances" in finding IK. That is to say they approach someone they think might have some knowledge on a certain

topic. Sometimes they end up being lucky as the person really does have the knowledge. However, if that person does not have sufficient knowledge on that specific topic there is a possibility that he or she will refer them to someone else who has the necessary knowledge required.

Three respondents (27.27%) indicated that they sometimes use their discretion to find IK. They normally target huge national events like the 'incwala' and reed dance, where they meet informants. In these events, they approach the heads or leaders of the different groups from different constituencies. As leaders they normally have a vast amount of knowledge on different IK topics. If they prefer to give the staff members someone else who would provide them with that knowledge, they do so through delegation.

When visiting communities, staff members get suggestions from the community members as to who has IK in their community. This was revealed by three (27.27%) out of the eleven respondents.

One respondent (9.09%) mentioned that people approach the staff members to visit sites they, the people, believe have some history, to record that history and collect objects, if available. The people are normally willing to provide the staff members with whatever knowledge they have about those sites.

The UNISWA Library is the one that provides International Standard Book Numbers (ISBNs) to authors in the country. According to one respondent (9.09%), when the authors request an ISBN, the staff members dealing with IK management look at their topics. If the topic is IK related, the authors are asked to deposit a copy with UNISWA Library, as per the legal deposit law, according to one respondent (9.09%).

Another respondent (9.09%) mentioned that someone working closely with the King or Queen Mother is another sign that that person has large amounts of IK. Sometimes a person's age and their exposure to IK is considered a possible sign that the person has IK. These include people like members of the the Boundaries Committee (the authority

concerned with the adjustments of the borders of the country) who were chosen because they have knowledge on the history of the Swazi nation and a lot of IK related knowledge.

One respondent (9.09%) said that members of the community sometimes volunteer to bring in IK objects with the history attached to them. A second respondent (9.09%) mentioned that a research team from the SNM also goes out to look for IK although budget constraints are always there.

5.5.2 THE RECORDING MECHANISMS USED WHEN COLLECTING IK

The staff members were asked what recording mechanisms they used when collecting IK. The responses to this question show that most of the institutions use tape recorders, video cameras and digital cameras to record IK. Sometimes IK is collected by writing down what informants give those who collect IK, but it is not used very much.

The findings reveal that nine (81.81%) out of the 11 respondents use tape recorders, nine (81.81%) use video cameras and ten (90.91%) use digital cameras. Seven (63.63%) use computers to store IK pictures and seven (63.63%) collected IK objects.

5.5.3 CHALLENGES ENCOUNTERED BY STAFF MEMBERS WHEN COLLECTING IK

The question as to whether staff members encountered any challenges when collecting IK elicited a number of responses from the respondents. Each one of them had some challenges they had identified when collecting IK. It is evident that the management of IK gets affected because of the challenges faced when collecting IK.

Challenges faced by the staff members when collecting IK are as follows:

Eight respondents (72.72%) indicated that some IK holders demand payment for their knowledge. Unfortunately there are no incentives to be given to the IK holders as mentioned by the administrators. One respondent (9.09%) mentioned that some IK holders do not want to co-operate. Four respondents (36.36%) forwarded the challenge that some IK holders have mixed facts which confuse the interviewer. Eight (72.72%)

respondents indicated that most IK holders are in remote areas where transport has difficulty getting to. Four respondents (36.36%) submitted that some IK holders are too old and therefore are not able to be interviewed in one day. They are usually sickly depending on the weather. This may result in staff members having to return without doing the interviews. Sometimes after covering part of the topic, the staff member returns to find that the IK holder has passed on.

All four (36.36%) respondents stated that when collecting IK through the legal deposit method some authors feel cheated of their work. This requires that the staff members have to quote the relevant legislation to get the work. Other challenges are budget constraints and secretive Swazi people who do not want to reveal all their knowledge because of the belief that knowledge will be stolen. This usually happens with traditional healers who fear that their IK on health will be stolen and used to enrich others. Sometimes people refuse to reveal their IK because they fear they will be undermined after letting go of their treasure (IK). They feel once the knowledge is shared they can no longer claim to have it as their own. This was revealed by eight respondents (72.72%). The eight respondents (72.72%) also added the following challenges:

- Other IK holders sometimes refuse to be video recorded.
- Some of the equipment used to collect IK requires certain expertise which is lacking amongst the staff members dealing with IK management.
- The staff members are sometimes not allowed to visit some sacred places in the country because it is taboo to go in there. Only special people can visit such places.
- There are few documented sources of IK which staff members could use to support IK management.

5.5.4 REPACKAGING OF IK
A question was asked if there was any repackaging done to ensure usage once the IK had been recorded.

> Repackaging is the process of selecting the appropriate material, re-processing the information in the form that can be readily understood, packaging information,

and arranging all these materials in a way that is appropriate to the user (Bunch, 1984: 25).

This question was asked to find out if there are some ways to ensure that the IK is presented in a form that other people can use. For example, if the IK has been collected in the local language (siSwati) is it then translated to English to accommodate those who do not understand the local language.

The results of the study reveal that the collected IK is repackaged at the SNM only. The knowledge on tapes is translated into English and the written IK is also translated into English to enable international researchers to benefit from the collection. At the SNA, the SNL and the UNISWA Library no repackaging has been done thus far. The collected IK is kept as is, in audio and video tapes and also that in written form is kept as is. After collecting the IK, the two institutions usually write down a summary of what they got and compile it into a booklet, otherwise they do not tamper with the original recordings.

5.5.5 ORGANISING/CLASSIFYING THE COLLECTED IK FOR EASY ACCESSIBILITY

In terms of classifying the collected IK, the study revealed that there are different ways of classifying the collected IK among the different institutions. The classification system used in each institution depended on the type of IK it managed. At the SNM, the collected IK is classified using different ethnographic categories like dance, song, rituals, ceremonies, domestic utensils, pottery, archaeology, different periods, national monuments and periods (like years of occurrence). The collected IK is arranged by subject matter and theme or topic. An example of subject matter could be that indigenous knowledge relating to cooking healthy food be placed in one place, likewise all IK falling under a certain theme such as *Health for all in the year 2010*, be grouped together. The records of IK sources are filed electronically on computers, on tapes or in print form (cards) for easy retrieval. The IK artefacts are arranged in different showcases where information is written in each case to explain the artefacts. An example here would be that IK about the traditional attire for the king would be displayed together, and the IK objects like the items used by a traditional healer be displayed and then explanatory information is written in each case as shown in Appendix 7i.

At the UNISWA Library the Dewey Decimal Classification is used to classify IK. IK topics are grouped by their subjects. At the SNL and the SNM there is no classification scheme used for the collected IK but they are listed in an index-list for easy identification and retrieval. These are grouped according to format and then by subject. For example, tapes are grouped together according to subject or topic covered. Records of IK sources are grouped together under general topics, such as the king's speeches, indigenous poetry and others.

As mentioned before, the SNM manages IK in a different way from the other institutions. It organises/classifies IK in the form of objects, sites and others. IK objects are classified by wood, bone and ivory, metal, paper and plastic, monetary, recycling material, textile, ceramic, skin, leather and composites (mixed clay, beads and paint).

5.5.6 CHALLENGES FACED WHEN ORGANISING/CLASSIFYING THE COLLECTED IK

The question which asked if there were any challenges faced by the staff members when organising/classifying the collected IK material revealed that there were no challenges at all except one respondent who maintained that the relevant departments needed to be taught to organise such materials using the computer.

5.5.7 THE USER POPULATION FOR THE COLLECTED AND ORGANISED IK

The responses to the question on the user population for the IK that is collected and organised reveal that the different institutions had a diverse user population. Please note that the responses given were the same as those received from the administrators of the institutions (see 5.3.9 above) and therefore no repetitive details have been given.

5.5.8 IK STORAGE/PRESERVATION IN THE INSTITUTIONS

In terms of the storage/preservation of the IK, the responses revealed that in the SNL and the UNISWA Library there are special rooms called the Swaziana sections which house the IK. The SNL has storage cabinets made out of steel for the IK related audio and video

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tapes in their Swaziana section. The steel cabinets are used because they are lockable and so prevent theft as well as being fire proof.

The UNISWA Library also stores its IK in magazine files at the Swaziana section. The Museum Library keeps the IK that is written down in booklets in steel cabinets in the education department which is then also transferred to computers. The IK objects and their history are kept in the museum archives for safety if not on display.

The SNA still keeps the IK stored in audio and video cassettes in the archivist's office but a separate room is being prepared.

5.5.9 SPECIAL PRECAUTIONS TAKEN WHEN STORING/PRESERVING IK

The response to the question as to whether there are precautions taken when storing/preserving IK shows that there are special precautions taken when storing IK in all the four institutions. All eleven respondents (100%) agreed that there are special precautions taken when storing IK.

The SNM has ensured that there is some back-up of all collected IK in a separate place. For example IK booklets are kept separately from the computers on which the same IK is stored. The ethnography department in the museum specialises in preserving the IK objects and they have staff skilled in doing this type of job. IK pictures are scanned and copied into the computer as back-up. Material that needs chemicals for preservation is sprayed frequently to kill the insects that destroy it.

The SNA also has special precautions related to the format being used to keep that IK. For example if the IK is stored in cassettes, all rules that apply to keeping cassettes safe from temperature, fire and other hazards are considered.

At the SNL, IK booklets, audio and video cassettes are stored in locked steel cabinets to safeguard against theft and fire.

5.5.10 CHALLENGES FACED BY STAFF MEMBERS WHEN STORING/PRESERVING IK

The findings of this study revealed that there are a number of challenges faced by the staff members when storing/preserving IK. Seven (63.63%) of the 11 respondents listed one of the challenges faced when storing IK to be the fact that the IK stored in computers can sometimes be corrupted because of viruses. Two respondents (18.18%) complained that under-trained staff results in work related to the storing/preserving of IK taking a long time. Ten (90.91%) respondents mentioned that the lack of finances for buying the material used for preserving IK material poses another challenge when storing/preserving IK. Another challenge that was listed by nine respondents (81.81%) is that technology changes rapidly which requires that recordings be made in the current technologies. The old versions of IK sometimes end up being unused because the machinery that is needed for their use is broken down and irreparable.

One respondent (9.09%) claimed that there isn't sufficient or relevant storage or a proper infrastructure to support the storage of the IK material. For example there aren't enough specialised cabinets. Three respondents (27.27%) forwarded the need for special training in IK management so that the departments dealing with storage can be more knowledgeable in classifying and storing IK.

5.5.11 MAKING THE IK KNOWN TO THE USERS AND STRATEGIES TO MARKET AND DISSEMINATE IK

A question as to how users were made aware of the IK was asked to find out if there are any efforts made in the institutions to market their IK related services given that marketing is very important in the dissemination of IK. The study revealed that there is a lot of marketing being done in the institutions to ensure that their IK related collection gets known by the users.

The SNM uses displays and then invites schools to learn from them. This institution in conjunction with the Ministry of Education usually visits the regions of the country to do workshops where teachers are taught about IK. The teachers in turn pass on this information to the students. Printed lists distributed at border gates, at holiday resorts like

the Royal Swazi Spa and at the SNL are also used to market the IK services. IK services are also advertised on the mother organisation's website (SNTC). The SNM uses the media (local radio station, local newspapers, and a magazine usually found at the border gates) to make users aware of the IK as well. This institution also conducts outreach programmes to schools, at special functions like school prize giving days, where they market their services. Since the SNM deals a lot with visitors from outside the country, the staff members dealing with the management of IK market the IK services when taking them on tour. The SNM has large exhibition halls to market/disseminate its IK services. There is a 'permanent exhibition' which lasts for 5-10 years. This type of show focuses on treasures of the Swazi people. There is also a 'temporary exhibition' which houses an IK collection that is changed frequently. This exhibition is organised in accordance with a theme which is usually produced by ICOM every May and it is in line with special museum days.

The UNISWA Library displays new IK materials at the library entrance immediately after processing. The SNL uses displays at the entrance of the building to market its IK services, printed lists, the organisation's brochure and also uses the national radio. The SNA uses the organisation's brochure to market its services to the public.

5.5.12 CHALLENGES FACED WHEN DISSEMINATING IK
The study revealed that there are many challenges faced by the staff members when disseminating IK. Seven respondents (63.63%) mentioned that the challenges faced by staff members at the SNM when disseminating IK especially in the south of the country is that the people in the south have different meanings or explanations of some of the aspects of IK since these areas are greatly influenced by South Africa (particularly the Pongola region). For example, according to the Swazi people, the first crop, like mealie meal, can only be eaten once the king has had the first bite, which wouldn't be of any significance to the South Africans. Staff members dealing with the management of IK cannot visit all places they would like to disseminate the IK to due to financial constraints which result in transport being scarce. Another challenge is that the Swazi culture is interpreted in different ways because not much is written down about it. This poses a

great challenge to staff members. They have to convince the people about IK facts. This challenge was voiced by all 11 respondents (100%).

Two respondents (18.18%) stated that when disseminating IK, staff members at the SNL are faced with the challenge that there is no room dedicated for watching IK videos and even for listening to the audio cassettes. As mentioned earlier, the collected IK remains un-edited because there is no machine to edit the recorded IK. This is a challenge when someone needs to use the IK. They use it as collected in its original form, with no repackaging or translations.

All 11 respondents (100%) complained that most of the IK that is written down has not been published. This is also a challenge when the staff members have to provide references for it. Another challenge the staff members of all the institutions (100%) face when disseminating IK is that they are not always very sure of the reliability of the knowledge because they can only rely on what the informant has given them.

5.5.13 THE USAGE OF THE IK COLLECTIONS

The responses to the question on the usage of the IK collections according to the staff varied a lot. Three of the respondents said the usage of the IK collection was very good (27.3%), four said the usage was good (36.4%), three said average (27.3%) and one (9.09%) said the usage was poor.

5.5.14 PROVIDING IK COLLECTION THROUGH INTER-LIBRARY LENDING (ILL)

A question was asked concerning whether or not their collections were made available through ILL. If the answer was yes, was there much demand for it and from where. This was asked because ILL is a form of working hand-in-hand with other institutions to share resources in order to satisfy user needs. The responses to this question indicated that IK material was not readily made available for ILL. The reason behind this is that IK material is regarded as very precious, important and a very scarce commodity which should be guarded with much care. Given this, there was always a risk of losing it. All 11

respondents (100%) indicated that they did not provide their IK related services through ILL.

5.5.15 COMMENTS ABOUT IK BY THE STAFF MEMBERS

A general question, as in the case of the administrators, was asked to bring up anything useful about IK management that could have been left out during the interviews. One respondent (9.09%) mentioned that IK serves as an identity instrument in that it reminded them (Swazi people) of the way things were done long ago and how they have failed or changed. Another (9.09%) mentioned that institutions needed to develop the creation and management of IK through the oral history collection. Two respondents (18.18%) commented that it is important to have proper management of IK in the institutions because the Swazi children should have a background and be able to determine their destiny. The two respondents added that IK must be given priority in order to avoid losing it though the death of IK holders. They finally suggested that institutions should make every effort to collect as much IK as possible since IK has been found to be very useful.

One respondent (9.09%) said that if the institutions had enough resources like transport, finance, audio-visuals, IK could be the best product. One respondent (9.09%) commented that IK objects need proper storage for them to have a long life. "Mine is to extend a plea to institutions who understand the importance of IK to extend a helping hand in support of IK management", said one respondent (9.09%). An additional respondent (9.09%) mentioned that there was a need for the development of policies specific to IK management. "There is also a need to improving the marketing of IK collections" he added. A further respondent (9.09%) said that her wish was that the library could be fully in charge of the finances for IK management since the Ministry of Education which is the mother body had a lot of other issues to look into.

Another respondent (9.09%) said that IK is very important for people's everyday living:

It is so unfortunate that we were robbed of our IK by western
countries who took over our land and claimed to have all the

knowledge we need. This has resulted to us not knowing who we really are. It is therefore important that we re-construct who we really are by identifying and collecting all available IK in order that our children will know who they really are and how they can survive using IK.

5.6 SUMMARY OF THE CHAPTER

The purpose of this chapter was to present all collected data in relation to the management of IK in Swaziland by the four institutions in focus. All the data collected through the interviews were presented and analysed.

The results of the study reveal that the administration in the four institutions is female dominated, whilst the gender of the staff members is evenly distributed. Positions by the administrators and the staff members were diverse and the duties they performed were diverse, they were all working towards the management of IK. The study revealed that there were no set standards or specified guidelines for IK management in Swaziland. Out of the four institutions, two had specific policies in place which govern the management of IK.

Intellectual Property Rights (IPRs) are considered by the four institutions by ensuring that the rights of the IK holders are respected and acknowledged. The study revealed that there were many challenges faced by staff members who deal with the management of IK. The challenges were mostly centred on lack of finances and resources for IK management and many others. In an effort to alleviate the challenges faced by staff members who deal with IK management, the administrators had taken it upon themselves to find solutions.

The following chapter will deal with interpretation of the results presented in this chapter.

CHAPTER 6: INTERPRETATION OF RESULTS OF THE STUDY

6.1 INTRODUCTION

The purpose of this chapter is to interpret the results presented in the previous chapter in light of the literature reviewed in chapter two and the research questions as outlined in chapter one.

SECTION A: PERSONAL INFORMATION

Section A of the interviews was focused on personal information including gender, age, highest qualification, position held and the duties performed by the participants. The administration was found to be female dominated as all four respondents were female, but the gender of the staff members dealing with the management of IK was evenly distributed (male and female). The ages of the administrators ranged between 41-60 whereas the staff members were between the ages of 31-50. What can be noted here is that the administrators were quite mature and more qualified compared to most of the staff members.

6.2 DUTIES PERFORMED WITH REGARD TO IK AND ITS MANAGEMENT

According to Kaniki and Mphahlele (2002: 34), the concept of IK management involves the identification, collection, codification, documenting, organizing, preservation, transfer, linking, application, dissemination and sharing of knowledge on indigenous community livelihoods and ecosystems, for sustainable development. Duties performed by the administrators with regard to IK management include the supervision of staff engaged in the management of IK through the process of collection development, to service provision; library management; administration of the cultural heritage, museums, monuments and sites; identification and development of IK systems and conservation of the cultural heritage; documenting/labelling of collected IK objects; interpreting for and educating visitors or IK seekers.

The research indicated that although the duties performed by the staff members dealing

with IK management vary they are all concerned with the collection, organising, storing/preservation and dissemination of IK. For example, at the SNM the study revealed that the management of IK works in the form of a chain. That is to say, in the collection of IK, the collector, the conservator and the researcher of the institution are involved. For storing there is the photographer; for marketing there is the exhibition officer in the museum hall. Finally, at the dissemination stage, there are the museum teachers, museum attendants and tour guides. The above discussion is an indication that the duties of the staff and the management of the four institutions being studied are in line with the duties associated with IK management as stated by Kaniki and Mphahlele above (2002).

Still on the duties performed by the staff members, the study also revealed that for the acquisition of IK material, the SNM relies on donations, purchases and borrowing of IK objects. In Chapter two, Mumba (2002: 318) makes the point that in the effort to manage knowledge, there is need for the IK manager to be in a position to understand the desired goal of managing IK and also understanding who the knowledge is meant to benefit. Mumba (2002: 318) continues to say that "owing to its special nature, IK needs innovative methods of definition, collection and dissemination". The staff members dealing with the management of IK collect donations of IK objects from individuals or institutions. An example of such a donation would be an old hoe. This object would have an historical background such as what it is, what it is used for, who donated it, place of origin and sometimes how old it is. The acquisition of an IK object would include an acquisition form which would be filled in by the staff member who acquired the object. The acquisition form contains the name of the object, the date the object was acquired, where it was obtained and at what price, invoice number (if it has one), description of the object, quantity, collector's name, condition of the object and any other details about the object. The above information ensures that the 'final product is enjoyed fully by the originators of knowledge" as Mumba (2002: 319) says. See Appendix 4 for an example of an acquisition form.

SECTION B: INDIGENOUS KNOWLEDGE MANAGEMENT

Section B of the interviews was focused on IK management. The findings in the literature review in Chapter two reveal that IK has been looked down upon because, as Mchombu (2002: 41) states, western knowledge with its powerful tools, was thought to have all the answers to humanity's problems. As mentioned in the literature review, authors who have written about IK such as Ngulube (2002) and Mchombu (2002) have pointed out that such knowledge is at risk of extinction. Ngulube (2002) has suggested that librarians and information professionals find strategies to collect, store and disseminate IK for present and future use in order for it to play an important part in sustainable development of the society, as Ngulube (2002: 95) puts it. Warren et al. (1993: 42) asserts that recent research has generated more and more data and information showing the relevance of IK for sustainable development; hence it is important for communities to record this knowledge. Therefore the researcher of this study thought it necessary to find out what the position is with regard to IK management in Swaziland.

The results of the study reveal that the management of IK is of importance to the four institutions the SNL, the SNA, the SNM and the UNISWA Library. The study revealed that administrators and the staff members of the four institutions were making an effort to best manage IK for present and future use. What follows is a discussion of the results as presented in the previous chapter. The discussion of each question starts with the responses of the administrators and the responses from the staff members then follows. The research questions provide a basis for the discussion.

6.3 STANDARDS OR SPECIFIED GUIDELINES SET FOR IK MANAGEMENT

The results of the study brought out the same response from all administrators and staff dealing with IK management. All of the 15 respondents (100%) responded that there are no set standards or specified guidelines for IK management in Swaziland. The literature reviewed does not say much about standards or specified guidelines for IK management. What it highlighted is that the problem of access to indigenous information is compounded by a lack of standardized indexing terms and by inconsistent indexing policies. Ngulube (2002: 66) says that the use of a controlled vocabulary such as thesauri

and other controlled lists of keywords, ontologies, classification systems, clustering approaches, taxonomies, gazetteers, dictionaries, lexical databases, concept maps/spaces, semantic road maps and others can facilitate the organization of IK in the information and retrieval systems. Ngulube (2002: 66) claims that the use of knowledge representation systems like thesauri is important in organising and retrieving recorded IK, which tends to be multidisciplinary in nature. The writer of this work feels that a guideline to be used in the management of IK should include the use of knowledge representation systems like thesauri in order to facilitate IK management.

6.3.1 SPECIFIC POLICIES WHICH GOVERN THE MANAGEMENT OF IK

A collection development policy is a very important document in the management of IK. Hollerman (1996: 50) says it must be updated to reflect the "new information environment" which combines [new types of information resources], locally held and remotely accessible resources. This study revealed that two institutions had specific policies which govern the management of IK. One of the two institutions is the SNM which uses the Swaziland National Trust Commission Act No. 9, established in 1972 (Appendix 5). The Museum was also established through this Act. Furthermore the Museum makes use of the policies of institutions of which they are a member. An example is that the SNM is a member of the International Council of Museums (ICOM). ICOM has a collection conservation policy which provides the ethics of collecting and preserving IK objects and what historical sites are used for.

The second institution which has a policy is the SNA which uses the Archives Act, 1971 (Appendix 6). The other two institutions, the SNL and the UNISWA Library do not have specific policies. Responses from staff dealing with IK management did not differ from those given by the administrators. The study conducted by Dlamini (2005) revealed that there was no written collection development policy that included IK at the SNLS.

6.3.2 INTELLECTUAL PROPERTY RIGHTS (IPR) WTH REGARD TO IK

The Economic Commission for Africa recommends that "oral tradition and IK in African communities should be exploited in all their forms of expression, giving cognizance to the protection of intellectual property rights" (United Nations, 2001). Ngulube (2002: 65) supports this statement by saying that since there is IK that is unique to certain individuals, IPRs should be upheld so that indigenous communities can benefit from the commercial use of their IK. After organizing the IK, information professionals can then invoke their knowledge of and skills in enforcing copyright matters to protect the intellectual property rights of indigenous people (Ngulube, 2002: 65).

In agreement with this observation, Kaniki and Mphahlele (2002: 10) noted that humans have recognised that money, time, effort and other resources invested in the creation and/or development of intellectual property or know-how (knowledge) must be recognised and rewarded. They therefore advise that it is important that IK managers identify who owns what and who has the right to use an individual's knowledge. That is to say the individual's creativity and invention needs to be recognised and protected.

The results of the study (for both administrators and staff), reflect that the issue of IPRs is considered by all the four institutions. Although the Intellectual Property Bill which enforces that the rights of IK holders be respected is still being worked on, the institutions are already aware of it and ensure that the rights of the IK holders are respected and acknowledged.

This study revealed that at the SNM, IK holders are encouraged to share their IK with others and in return they are acknowledged for their contribution. An example is that on the donated artefacts, the holders' names are written. The educator also explains to users as to who donated the object to the institution and gives its history too. Whether IK is stored in computers, on photographs, on tapes or in whatever form, everything is labelled acknowledging the source. The same applies to the SNA, the SNL and the UNISWA Library. In addition to labelling, the SNL does not allow its users to copy the recorded IK. Users are only allowed to listen and take notes. This is because the SNL staff

members respect the IPRs of the IK holders.

The following are discussions of the results of questions which were directed only to the administrators. Discussion of questions that were directed to the staff members will follow later.

6.3.3 INITIATIVES TO ENSURE THAT STAFF MEMBERS WHO DEAL WITH IK, COLLECT, ORGANISE, PRESERVE AND DISSEMINATE IK EFFECTIVELY TO THEIR USER POPULATION

The study revealed that the administrators have taken different initiatives to ensure that the staff members who deal with the management of IK do their work effectively. The initiatives taken by the administrators include training staff members on different skills, supporting staff with the necessary resources that are needed for IK management, and holding regular meetings for administrators and staff members to discuss a way forward in IK management.

The initiatives taken by the administrators to ensure that IK is managed effectively and disseminated to the user population is an indication that the administrators understand the importance of IK management and have the users' best interests at heart.

6.3.4 CHALLENGES FACED BY STAFF MEMBERS WHEN COLLECTING, STORING/PRESERVING AND DISSEMINATING IK

The study revealed that there are many challenges faced by staff members when performing their duties in the management of IK. The range of challenges include the lack of necessary equipment, the lack of trained personnel to make IK management effective and efficient, staff shortages, lack of incentives to encourage IK holders to share their knowledge and lack of finances to support IK management. Kaniki and Mphahlele (2002: 9) say that knowledge managers dealing with IK have to identify and use effective motivators and motivating techniques to facilitate knowledge sharing. An example they give for this is that "knowers" and generators of knowledge (who are called "holders" in this thesis), must be assured that they will be appropriately compensated, rewarded and/or recognised for their knowledge. Staff members dealing with the management of IK in the

four institutions are in agreement with the idea of motivators, but they have raised the concern that because of financial constraints, they do not provide the IK holders with any incentives in the form of financial rewards. According to the administrators, the challenges faced by the staff members hinder the management of IK in the institutions.

Another challenge faced by staff members when collecting IK revealed by the study is that some IK holders have mixed facts which confuse the interviewer. Mabawonku (2002, 54) says that in the collection of IK, the "resource person" or IK holder is the key figure in documenting IK and therefore it is important that she/he is not only knowledgeable, but is also seen as a reliable source. This is to ensure that the collected IK is reliable and authentic. Mabawonku (2002: 54) continues to say that having more than one resource person would be an advantage especially if there are different opinions on knowledge given by two holders or even if the knowledge has been distorted somehow.

6.3.5 EFFORTS TO ALLEVIATE THE CHALLENGES FACED BY THE STAFF MEMBERS WHEN MANAGING IK

The study revealed that the four administrators knew the challenges faced by the staff members when managing IK and they had taken it upon themselves to find some solutions. Various initiatives have been taken to alleviate the challenges and these concerns have been presented to the senior management of the various institutions and they are being looked into. An action plan has been presented by the administration of the SNLS to its headquarters (the Ministry of Education) with costs for consideration (this includes multi-media equipment). A meeting has been held with the Minister of Education to present the concerns and challenges. To meet the issue of lack of resources, the SNM and the SNA have sourced donor funding from different organisations and a number of other initiatives have been undertaken, as mentioned in the previous chapter.

In the literature review of this study Davenport (1988) quoted by Kaniki and Mphahlele (2002: 34) mentioned that knowledge management in general is expensive because it involves financial, material, human and other resources for it to be successful. The results of the study indicate that the administrators in the four institutions are aware that the management of IK is expensive. That is why they have taken it upon themselves to find

financial assistance and other solutions. Financial assistance would cover the training of staff members and would also support the acquisition of the necessary equipment required in the management of IK, such as up to date recording machinery.

6.3.6 SKILLS/SPECIAL TRAINING FOR STAFF MEMBERS RELATED TO THE MANAGEMENT OF IK

A question was asked if there were any special skills/training in place for the staff members related to the management of IK. The study reveals that special training is available for staff members dealing with IK management. From the responses given by the administrators, one can conclude that two institutions (SNM and SNA) had training arranged for their staff members. The third institution (SNL) mentioned that one staff member dealing with the management of IK has been sent to specialise in IK management studies. Only the UNISWA Library does not have any special skills/training related to the management of IK for the staff members except the basic skill of managing information generally. The results of the study reveal that the three institutions (SNM, SNA and SNL) are supportive of the idea that people dealing with IK management should be given special training in order for them to be efficient in their duties.

Mphahlele and Kaniki (2002: 1) also think that there is a need that qualified personnel be given the duty of managing IK in order to ensure its successful management. This they say is because if not appropriately managed, IK can be misused.

The following are discussions of the questions that were directed to both the administrators and the staff members of the four institutions.

6.3.7 THE MAIN USERS OF THE IK SERVICES PROVIDED BY THE INSTITUTIONS

The results of the study reveal that the main users of the IK services provided by the institutions consist of researchers, the general public, local schools (students, teachers), local and international researchers, tourists who are enthusiastic to know about Swaziland's cultural heritage, government officers, university students and traditional authorities.

The literature review of this study highlights the fact that knowledge in general is needed

by different types of users including the illiterate and semi-literate, those who can only understand their local languages like siSwati (in the case of Swaziland), those who can read and write siSwati but cannot understand English and also the blind, who cannot read unless information is written in Braille.

The results of the study reveal that there are different types of IK users in all four institutions but the blind people are not accommodated in the IK services.

6.3.8 THE USAGE OF IK SERVICES

A question was asked to ascertain if the administrators as well as the staff members were fully satisfied with the usage of the IK services provided by their institutions. The results of the study show that the administrators view the usage of the IK services to be between good and average, none of them viewed their services as very good. This is because they had observed challenges in the management of IK which hinder the usage of the services.

An observation made by Warren and McKierman (1995: 426) quoted by Ngulube (2002: 65) is that access to indigenous information collected so far is very limited because it is not well organized in terms of being indexed and abstracted. This adds to it being underutilized in development projects. The researcher of this thesis also agrees with the statement made by Ngulube (2002:65) that a lack of marketing strategies accounts for a low level of use in IK. In the case of the four institutions in the study it was revealed that there are a number of strategies put into place for marketing IK (see below). This means therefore that other factors, besides marketing could be affecting the usage of IK.

As suggested by the International Institute for Rural Reconstruction (IIRR) in the Philippines, a specialised community and centre-based thesauri for cataloguing IK should be made in order to facilitate access to IK resources (Ngulube, 2002: 66). Ngulube (2002: 66) also suggests that annotated bibliographies that are descriptive and evaluative should be compiled, because the bibliographies can be very useful in informing users of the relevance, accuracy and quality of the IK resources held in their institutions.

More specifically, the responses from the staff members to this question on the usage of

IK services varied a lot. Three of the respondents said the usage of the services was very good (27.3%), four said the usage of the services was good (36.4%), three said average (27.3%) and only one (9%) said the usage of the services was poor.

The following are discussions around the questions that were directed only to the staff members of the four institutions.

6.3.9 AWARENESS OF IK AVAILABILITY

As mentioned in the literature review, sources of IK include interactions with the elderly, parents, grandparents, relatives, friends, radio programs and many more (Akullo et. al (2007: 10). IK may be expressed in stories, songs, folklore, proverbs, dances, myths, cultural values, beliefs, rituals, and many others (Akullo et. al, 2007: 2). The results of the study indicate that staff members dealing with the management of IK are alerted to the availability of IK through different means, namely listening to the radio, watching television and also inquiring from knowledgeable elderly people. They also target huge national events like 'incwala' and the reed dance, where they meet informants. At such events, the staff members approach the heads or leaders of the different groups from different constituencies who normally have a vast amount of knowledge on different IK topics. The leaders sometimes delegate someone else who would provide the staff members with the IK. Mabawonku (2002: 54) says that some IK is best collected at specific times or seasons, for example, with ceremonies IK can only be collected at specific times of the ceremony, and therefore advises that, to be successful, the collection should coincide with the most appropriate period.

From the responses given by the staff dealing with the management of IK, one can understand that they have to be alert, creative and work hard in order to be able to find IK. This means IK management is not an easy job, but one has to put in an effort in order to succeed in IK management. This means that staff members have to adopt a more proactive approach including leaving their desks and moving into the community to identify potential sources of IK.

6.3.10 RECORDING MECHANISMS USED WHEN COLLECTING IK

The results of the study show that most of the institutions use tape recorders, video cameras and digital cameras to record IK. Sometimes IK is collected by writing down what is given orally by informants to those who collect IK, but it is not used very much. This means the four institutions are in agreement with Ngulube's (2002) contention that besides being recorded manually through text documents or electronic formats, IK could be recorded on cassette tapes, film, story-telling, CDs, DVDs, video and others. Stevens (2008: 29) suggests that methods of IK preservation should include digital technologies because they facilitate the preservation of the orally communicated IK in ways that were not previously possible. Steven (2008: 29) says that audio visual digital recording devices can be used to capture oral stories in original indigenous languages, as well as techniques, practices, songs and dances, often performed in context.

6.3.11 REPACKAGING OF IK TO ENSURE USAGE

A question was asked to find out if there is some means to ensure that the IK is presented in a form that other people can use. For example, if the IK has been collected in the local language (siSwati) is it then translated into English to accommodate those who do not understand the local language.

The results of the study reveal that the collected IK is repackaged at the SNM only. The IK stored on tapes and that which is written down is translated into English to enable international researchers to benefit from the collection. This is in agreement with Mabawonku (2002: 54) who suggested that after recording collected IK, the next step is to edit the tapes and produce pictures and graphics. The content of the recording should then be summarized in other languages such as English (Mabawonku, 2002: 57). Unfortunately the SNM can not help the deaf pupils who visit because no one has been trained in sign language.

At the SNA, the SNL and UNISWA Library no repackaging has been done so far, the collected IK is kept as is. Respondents cited the problem of not having the relevant machinery for editing the collected IK as one of the reasons why they had done no

repackaging. After collecting the IK, the two institutions usually write down a summary of what they have received and compile it into a booklet; otherwise they do not tamper with the original recordings. Abbot (2002) suggests that the use of the community language should be central to the management of IK. This is because if the community loses its language and changes to another, not only would the community lose a unique system of man-made symbols but also all the IK that the language carries with it (Abbot, 2002: 226). Abbot's (2002) suggestion is that the local language be used as the working language in all management of IK, then translations can be done to disseminate to those who do not know the language. The study revealed that the SNA, the SNL and the UNISWA Library have not moved on to translating the collected IK because of a lack of financial resources and trained personnel.

6.3.12 ORGANISING/CLASSIFYING THE COLLECTED IK FOR EASY ACCESSIBILITY

The study indicates that there are different ways of classifying the collected IK among the different institutions. The classification system used in each institution depended on the type of IK it managed.

For access the collected IK is grouped by cassettes, files and then they are listed in an index list for easy identification and retrieval. This happens at the SNL and the SNM. There is no classification scheme used except in the general topics such as keeping the King's speeches together. Tapes are grouped together according to subject or topic covered.

Still on the issue of organising the collected IK; Mabawonku (2002: 57) suggested that if the IK has been recorded on cassette and/or video tapes, the next step is to edit the tapes and produce pictures and graphics. The content of the recording should then be summarized in writing either on computer or on a notebook, in other languages such as English. The study revealed that there is no machinery for editing the IK recorded on tapes. This is a hindrance in achieving efficient management of IK in the institutions.

The results of the study reveal that all the institutions have special rooms where they keep

the classified/organised IK.

6.3.13 IK STORAGE IN THE INSTITUTIONS

According to Lawas and Luning (1996) the collection of IK is laborious, time consuming and costly. Thus proper storage and management must be ensured if the information is to be made available and accessible for the benefit of human kind. The findings of the study coincide with the observations of Lawas and Luning (1996) and special precautions regarding storage are undertaken at these institutions and it is to this aspect that the discussion now turns.

6.3.14 SPECIAL PRECAUTIONS TAKEN WHEN STORING IK

The results of the study show that there are various special precautions taken when storing IK in the institutions. Preventive conservation is the latest trend in the special training offered for staff members dealing with IK management. Traditionally conservation of IK objects was by use of mechanical preservation using chemicals but now the use of chemicals is being phased out.

As mentioned above, at the SNL, IK booklets, audio and video cassettes are stored in locked steel cabinets to safeguard against theft and fire.

6.3.15 CHALLENGES FACED WHEN STORING/PRESERVING IK

The study revealed that there are a lot of challenges faced by the staff members when storing/preserving IK. All the challenges faced when storing IK amount to a lack of finances to support IK management. Davenport (1998) quoted by Mphahlele and Kaniki (2002: 10) suggest that IK managers (administrators and staff members dealing with IK management) must raise awareness about the importance of IK. They (Kaniki and Mphahlele, 2002: 10) say this could open doors for financial assistance and any other necessary assistance to support the management of IK. The issue of raising awareness by the institutions is discussed in the next section.

6.3.16 STRATEGIES USED FOR MAKING THE IK COLLECTION KNOWN TO THE USERS

Mabawonku (2002: 58) asserts that the dissemination of IK is very crucial in its management, because knowledge that is gained but unavailable to others is wasted. The study revealed that there is a lot of marketing being done in the institutions in focus to ensure that their IK related collection gets known by the users. Kaniki and Mphahlele (2002: 34) say that because IK is marginalised and at times treated with suspicion, there is a need for the awareness to be raised about its importance in order that society will recognise its usefulness and thus warrant the allocation of resources to it. The results of the study reveal that the four institutions are in agreement with the above observation and they are doing everything in their power to make their IK collections known to the society and even the whole world.

As mentioned earlier, Ngulube (2002: 66) advises library and information professionals to play a leading role in the compilation of annotated bibliographies that are descriptive and evaluative. These bibliographies can be very useful in informing readers of the relevance, accuracy and quality of the IK held in various information resource centres. Bibliographies eliminate chaos, disorganisation and inapplicability of miscellaneous contributions to knowledge systems (Ngulube, 2002: 66). This is very good advice which needs to be taken seriously by the four institutions in this study, because the results of the study do not mention anything on bibliographies.

The results of the study show that there are a number of strategies used to market and disseminate IK to the users by the four institutions. This is an indication that IK is considered essential and therefore it is necessary that it be marketed and disseminated as widely as can be. Marketing principles are necessary for the management of IK because as Ngulube (2002: 67) asserts they would facilitate the utilisation of IK as well as the production of user-oriented rather than producer-oriented services. The SNM displays its IK collection in order that its users get to know of it. Please find attached pictures of displays from SNM recorded by the researcher in Appendix 7i, ii and iii. Appendix 7i is a display of items used by a traditional healer (inyanga). These items have labels next to them which are the names of the objects, as well as some history written about that item,

such as what it is and what its uses are. Appendix 7ii shows the traditional skirt for girls (indlamu) which was used long ago before the now improved skirt made out of cloth. Appendix 7iii shows a grinding stone. A grinding stone is of importance to the Swazi or other African people. It was used for grinding peanuts, maize and many types of foods. The grinding stone has nowadays been replaced by machines like a grater, mincer, blender, maize grinders and many more.

6.3.17 CHALLENGES FACED WHEN DISSEMINATING IK

The study revealed that there are a lot of challenges faced by the staff members when disseminating IK but the most prevalent is that of lack of finances to support the dissemination of IK. Davenport (1998) suggests that awareness must be raised about IK and its usefulness in order to alleviate the challenge of lack of finances. The four institutions have raised awareness about IK and its usefulness through marketing. It is now the responsibility of the mother organisations of the institutions to decide to allocate the necessary funding to support IK management.

6.3.18 PROVIDING IK COLLECTIONS THROUGH INTER-LIBRARY LOAN (ILL)

ILL is a way of working hand in hand with other institutions to share resources in order to satisfy user needs. According to Odini (1990: 97) sharing involves cooperation, coordination, interlibrary loans and cooperative acquisition, processing and storage. The results of the study concerning ILL reveal that IK material was not readily shared through ILL. The reason behind this is that IK material is regarded as a very precious, important and a very scarce commodity which should be guarded with much care. Another reason is the risk of losing it. As mentioned earlier, some of the institutions did not see ILL as a necessity because they said they preferred to use what they have in their collection. This poses the question as to what would these institutions do if users want something they have not yet got?

As mentioned in the literature review, the realisation of the need for IK management is continuing to increase at an even faster rate than anyone would expect around the world including Swaziland. At the same time expenses associated with acquiring, processing, storing and retrieving IK material will continue to increase at a faster rate than the library

and information centre's budgets. As mentioned earlier, IK is needed by a diverse user population. These diversities put a challenge on the budget of IK services. There is therefore a need for knowledge to be shared by the different institutions in order to satisfy the needs of their users. According to Dlamini (2005: 98), "no library and/or information centre can claim to be self sufficient, especially in this era where funding is dwindling."

There was a feeling by one respondent that if the institutions had enough resources like transport, finance and audio visuals, IK could be the institutions' best product.

Both administrators and the staff members were asked to comment about IK and its management. The following discussion concentrates on both their responses.

6.3.19 ADDITIONAL COMMENTS ABOUT IK AND ITS MANAGEMENT
The administrators had a lot to say about IK management in their institutions. The results of the study show that the administrators have a good understanding of the importance of IK. They have also given thought to the solutions that could help alleviate the challenges faced in the management of IK. They had a lot of suggestions to make in order that IK could be managed more effectively. The administrators asserted that there is still a lot to be done in order to document IK, including giving priority to financing the management of IK and by ensuring special training in the management of IK. The administrators are in agreement with the views of Mphahlele and Kaniki (2002: 6) who state that IK is as important as other knowledge which may provide unique solutions for dealing with local and even non-local situations.

The results of the study reveal that the staff members dealing with the management of IK, like the administrators, had much to say about IK management in their institutions. They also have a good understanding of the importance of IK. One staff member made the distinction between tangible heritage in the form of IK objects and intangible heritage which is precious knowledge of issues, story-telling, poems and myths. Another respondent said she wished that the library would be fully in charge of the finances for IK management. A further respondent felt that more trained personnel were needed for the management of IK to be efficient. All the comments show that the staff members are in

support of the observation by authors in the field like Mchombu (2002), Kaniki and Mphahlele (2002) and others that IK is a very important resource for sustainable development which is fast diminishing and will soon be extinct if not managed correctly.

6.4 SUMMARY OF THE CHAPTER

The purpose of this chapter was to interpret the results of the study in relation to the management of IK in Swaziland by the four institutions in focus. The results of the study reveal that IK is considered to be of importance by the four institutions in focus. Although the four institutions in focus have realised the importance of managing IK, there are many challenges they face that hinder their efforts in managing IK. A positive outcome of the study is that the administrators in the four institutions know the challenges and have taken various measures to alleviate them.

In conclusion, what can be learnt from the comments of the administrators on IK is that the four institutions have the effective management of IK as a priority. They understand its value. They understand that with it, all societies will benefit and be in a better position to know who they are and how they used to live. It now falls upon the mother organisations of the four institutions to financially support IK management by the four institutions.

The next chapter will deal with conclusions from the findings of the study and suggest recommendations.

CHAPTER 7: CONCLUSION

7.1 INTRODUCTION

The purpose of this concluding chapter is to present a summary of the research findings, the conclusions and the recommendations that emerged from the study. However, following this introduction a review of the study, by chapter, will be given.

7.2 REVIEW OF THE STUDY

The study investigated the management of IK in Swaziland by four institutions, the SNL, the SNA, the SNM and the UNISWA Library. In addition to investigating how these four institutions manage their IK, this study also set out to investigate the types of technology they use in doing so. It also examined what the challenges in the management of IK are, and how they have been addressed in order to find a way forward.

The study was guided by the following research questions:
- Are there policies specific to IK management in place in Swaziland generally and in the four institutions specifically?
- Are there set standards or specified guidelines for IK management in Swaziland?
- How is the issue of intellectual property rights handled by librarians dealing with the management of IK?
- What strategies are used to collect, preserve and disseminate IK by the four institutions?
- In what format is IK stored by the four institutions, that is analogue, digital and other formats?
- How do the four institutions determine who they collect IK from?
- After IK has been collected, is there any repackaging being done to facilitate dissemination?
- Do librarians involved in the process of managing IK have the necessary skills for IK management?
- What efforts are made by the four institutions to market their IK-related services to ensure effective and efficient service delivery in the provision of IK to their

users?

- What challenges do the four institutions face in managing IK?

As mentioned in the first chapter, the study was motivated by the assertion made by Muswazi (2001) that Swaziland has an immense quantity of IK dealing with almost every aspect of daily life like food production, preparation and preservation; agriculture; leadership; and medicinal plants and their use. The author (Muswazi, 2001) went on to say that it is therefore important that this useful information be well managed to be accessible for present and future generations. If not well managed, its abundance would be of no significance to potential users.

Chapter one was dedicated to discussing the background to the study, the statement of the problem, significance of the study, the research questions, definition of key terms relevant to the study, the conceptual framework of the study, the limitations of the study and a brief discussion on how the chapters of the whole thesis are arranged.

Chapter two discussed the literature on IK and this included the characteristics of IK, sources of IK, reasons why IK needs to be managed, causes of the destruction of IK, the management of IK, challenges in the management of IK, management strategies that can be used for IK, IK and Intellectual Property Rights (IPRs), problems related to IK and IPRs, possible solutions to the problems related to IPRs, international initiatives to protect IK, IK and Inter Library Lending (ILL) and finally the repackaging of IK. These aspects were covered because they are related to the research questions of this study.

Chapter three discussed the background and history of the SNL, the SNA, the SNM and the UNISWA Library. Chapter four discussed the research methodology, population and sampling, data collection methods, semi-structured interviews, evaluating the interview schedule, pre-testing the interview schedule, administering and recording the interviews, observation, validity and reliability and data analysis.

Chapter five presented the findings in relation to the management of IK in Swaziland by

the four institutions in focus. The analysis of data began by writing up the interviews, which were tape recorded. The purpose of Chapter six was to discuss the significant findings as presented in the previous chapter in the light of the relevant literature. The research questions provided a basis for the discussion.

The summary of the findings of the study will be presented in the order of the research questions above.

7.3 SUMMARY OF FINDINGS

- The study found that there are no policies specific to the management of IK in Swaziland which the institutions in focus could rely on for the effective management of IK. Furthermore there are no set standards or specified guidelines for IK management in Swaziland.

- However, the results of the study revealed that two institutions had specific policies which govern the management of IK. One of the two institutions is the SNM which uses the Swaziland National Trust Commission Act No. 9, which was established in 1972 (Appendix 5). The second institution which has a policy is the SNA which uses the Archives Act, 1971 (Appendix 6). The other two institutions, SNL and the UNISWA Library do not have specific policies.

- The results of the study concerning the issue of Intellectual Property Rights (IPR's) reflect that the issue is considered by the institutions. Although the Intellectual Property Bill which enforces that the rights of IK holders be respected is still being worked on, the staff members and administrators of the institutions are already aware of it and they are ensuring that they themselves respect and acknowledge the rights of the IK holders.

- The study found that most of the institutions use tape recorders, video cameras and digital cameras to record IK. Sometimes IK is collected by writing down what informants give those who collect IK, but it is not used very much.

- To store IK, the institutions depend on audio/video cassettes and computers and in addition to that the SNM uses cabinets to store the IK objects.

- The study revealed that to be able to find IK, the staff in the four institutions have to be alert, creative and proactive. It emerged that identifying where to collect IK is not an easy job, but one has to put in an effort in order to succeed. Being alert includes identifying leading information from local media (newspapers, television and radio). General knowledge of people who are knowledgeable on IK topics is another way of determining who to collect IK from. The study also revealed that in order to find IK the staff members could not be office-bound as IK would not just come to them.

- Once the IK has been collected, no repackaging is done in three of the four institutions. The exception is the SNM. Here, the institution translates the collected IK. The SNM is the only organisation which translates the collected IK onto tapes, into English. This enables international researchers to benefit from the collection.

- From the responses given by the administrators, the study concluded that there is not much skill or special training in place for the staff members dealing with the management of IK at the SNL and the UNISWA Library. It is only recently that a need for special training has been realised. The SNM and the SNA are the two institutions where relevant training has been arranged for the staff members.

- The study revealed that to ensure effective and efficient service delivery in the provision of IK to their users, there is marketing being done in the institutions. This includes setting up exhibitions and displays, inviting schools to visit the institutions, using the media (national radio and newspapers) to market the services, displaying IK products at the institutions' entrances so that users may see them, conducting outreach programmes at schools and special functions such as school prize-giving days and printed lists of the collection being distributed to the user population across the country.

- The findings indicated that there are a number of challenges faced by the four institutions in terms of managing IK. Challenges include financial constraints, lack of trained personnel, staff shortages and knowledge hoarding by some IK holders. Financial constraints, in particular were found to be the main challenge,

for example by affecting the acquisition of necessary equipment for IK management and crippling transport costs to places where IK can be collected.

- Finally, the findings revealed that all four institutions recognised the importance of marketing their IK collections as widely as possible.

Given the above findings, the following conclusions are made.

7.4 CONCLUSIONS

IK is considered to be of importance by all four institutions.

- Although some of the institutions like the SNA have just started taking the initiative to manage IK seriously, there is an indication that the society will benefit from the institutions' IK management.

- The study revealed that the four institutions did not share their resources through Inter Library Lending (ILL).

- There is a need for the formulation of specific policies or specified guidelines to the management of IK in Swaziland to enable the institutions dealing with IK management to manage effectively.

- The study revealed that in the three institutions, SNLS, SNA and UNISWA Library, no repackaging of the collected IK has been done. There is a need that the IK be repackaged to enable international researchers to benefit.

- There is a need that special training be put in place for the staff members dealing with the management of IK to ensure effective and efficient service delivery.

- The Government of Swaziland needs to be made aware of the importance of IK and its management, in order to encourage the Government to support the SNL and UNISWA Library financially.

- If supported financially, the SNL and UNISWA Library would be in a better position to have incentives to give to IK holders for sharing their IK. Transport problems would also be overcome if the financial support is provided.

7.5 RECOMMENDATIONS FOR POLICY AND PRACTICE

The following recommendations are made based on the findings of the study and conclusions reached:

- This study shows that there are no set standards or specified guidelines for the management of IK in Swaziland. In order that efficient and effective management of IK is achieved, there is a need for the institutions dealing with the management of IK to come together and ensure that policies or specified guidelines for the management of IK in Swaziland are formulated.

- Repackaging of information is very important for the wider dissemination of IK. It is recommended that the SNM should not be the only organization which repackages the collected IK, but the other institutions that manage IK should also do repackaging.

- It is evident that the management of IK requires specialist skills. It is therefore recommended that special training on IK be offered to the staff members dealing with the management of IK in the different institutions.

- Among the many challenges indicated in the management of IK, financial constraints seemed to be the major one. Given this it is recommended that the possibility of an increased budget that will be dedicated for the management of IK is investigated.

- There is a need for all the institutions dealing with the management of IK in Swaziland to form a collaborative framework that will enhance information exchange. Networking or collaboration allows for a more effective pooling of resources and sharing of experiences and information on IK, both among various individuals and organizations.

- Finally, it is recommended that all the institutions dealing with the management of IK frequently visit the IK management issues discussed in the literature review (Chapter two) of this thesis. This may help remind them not to leave out any of the important aspects concerning IK management. These are as follows and can be viewed as recommendations:

- The issue of IPRs must be recognised at all times when dealing with IK management.

- Controlled vocabularies (indexing and abstracting) must be used to enhance the access and retrieval of the collected IK even in development projects.
- Annotated bibliographies that are descriptive and evaluative should be compiled by the institutions engaged in IK management.
- Institutions engaged in IK management should apply marketing principles to IK to facilitate utilization of IK as well as the production of user-oriented rather than producer oriented services.
- Preservation strategies of IK should be ensured for the longevity of IK and IK objects.
- Qualified knowledge managers must be given the duty of managing IK.
- IK managers should identify and use effective motivators and motivating techniques to facilitate knowledge sharing.
- Continuous management of IK ensures that new knowledge is discovered. It is therefore of vital importance that IK management be done continually.
- The institutions that are involved in IK management should put in place means to recognise the usefulness of IK in order to open doors for financial assistance.
- The use of the community language should be central to the management of IK.
- IK can be articulated both tacitly and explicitly through artefacts that the indigenous people produce (traditional technologies) music, story-telling and many others.

7.6 RECOMMENDATIONS FOR FURTHER RESEARCH

- It would be very useful to study how the Swaziland National Trust Commission (SNTC) manages IK through the other departments besides SNM. The other departments include the King Sobhuza II Memorial Park, the Swazi cultural village at Mantenga, and the Malolotja and Mlawula Nature Reserves.
- Another area that would be useful to study is finding out how much of the population of Swaziland benefits from the collected IK.
- There is also a need to find out if there is a clear understanding of the importance of IK and its management among the government of Swaziland's policy makers.

7.7 SUMMARY OF THE CHAPTER

The purpose of this final chapter was to present a review of the study, a summary of the research findings, the conclusions and the recommendations that emerged from the study.

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