

**MEASURING SOUTH AFRICAN SOCIAL DEVELOPMENT:
A CASE STUDY OF PRAXIS IN THE EASTERN CAPE**

A dissertation submitted in partial fulfilment of the requirements for the degree

MASTER OF ARTS

Development Studies

by

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March 2021

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Declaration

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Abstract

In South Africa, present levels of poverty and inequality are intolerably high, and there is both an incontestable imperative to enact, and an expressed commitment by the state to facilitate, social development. There is, however, little evident evaluation of how effective this undertaking has been. The aim of this research is to quantify and assess the social development praxis - ideology, process, and practice combined - of the mandated government Department of Social Development. The enquiry investigates the case of the Eastern Cape province, exploiting the public availability of the Eastern Cape Department of Social Development's Annual Reports.

The research first determines the scope of the Eastern Cape Department of Social Development activity by the measure of financial resource allocation across the categorical channels of Department of Social Development activity for the financial years 2007/2008 to 2017/2018. This enables in the second instance, establishing the changes in targeted social development outcomes by measuring the change in provincial inverse, multidimensional poverty over the study period. This was achieved using the data generated by all five waves of the National Income Dynamics Survey, and by computing a novel Multidimensional Poverty Index for the Eastern Cape using the Alkire-Foster method.

Utilizing a fractional response probit model to determine an empirical association between the explanatory variable of changes in Eastern Cape Department of Social Development financial resource allocation, and the changes in the outcome variable of targeted social development outcomes represented by the regional Multidimensional Poverty Index, the study estimated an empirical - but negligible - association between Eastern Cape Department of Social Development spending and the regional Multidimensional Poverty Index. This infers a limited impact of Eastern Cape Department of Social Development praxis on multidimensional poverty.

The research concludes that there is an evident insufficiency in the scope of the mechanism of state-led social development interventions as practiced in the Eastern Cape province and that redress of long-term deprivations and inequity of access to vital social goods, such as quality education, employment stability, and appropriate healthcare, has been inadequate. While this case evidence is not necessarily generalisable to the country, it is recommended that further investigation iteratively evaluates the outcomes of social development praxis in the other provinces.

Acknowledgements

Do not go gentle into that good night - by Dylan Thomas

Do not go gentle into that good night,
Old age should burn and rave at close of day;
Rage, rage against the dying of the light.

Though wise men at their end know dark is right,
Because their words had forked no lightning they
Do not go gentle into that good night.

Good men, the last wave by, crying how bright
Their frail deeds might have danced in a green bay,
Rage, rage against the dying of the light.

Wild men who caught and sang the sun in flight,
And learn, too late, they grieved it on its way,
Do not go gentle into that good night.

Grave men, near death, who see with blinding sight
Blind eyes could blaze like meteors and be gay,
Rage, rage against the dying of the light.

And you, my father, there on the sad height,
Curse, bless, me now with your fierce tears, I pray.
Do not go gentle into that good night.
Rage, rage against the dying of the light.

Abbreviations

- (AF) Alkire-Foster method
- (BNA) Basic Needs Approach
- (BSF) Building Stability Framework
- (CF) Children and Families
- (CBO) Community-Based Organisations
- (DR) Development and Research
- (DSD) Department of Social Development
- (DPME) Department of Planning, Monitoring, and Evaluation
- (EC) Eastern Cape
- (FBO) Faith-Based Organisations
- (GLM) Generalized linear model
- (GEAR) Growth, Redistribution and Employment strategy
- (HDI) Human Development Index
- (MITI) Japanese Ministry for International Trade and Industry
- (MPI) Multidimensional Poverty Index
- (NDP) National Development Plan
- (NPC) National Planning Commission
- (NGO) Non-Governmental Organisations
- (NIDS) National Income and Dynamics Survey
- (NDA) National Development Agency
- (OSM) Open Systems Model
- (QMLE) Quasi-maximum likelihood estimator
- (RDP) Reconstruction and Development Programme
- (RS) Restorative Services
- (SWS) Social Welfare Services
- (SASSA) South African Social Security Agency

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CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Introduction

Historical antecedents, exacerbated by more recent crises, have left an all-too-significant portion of the South African population impoverished and economically vulnerable, intensifying the immediate imperative for social development. This imperative is admitted by the very existence of an entire legislative arm of the national government dedicated to, and appropriately named, the Department of Social Development (DSD).

The DSD serves as the director and curator of social development activity in South Africa. The department is mandated by the national constitution to provide social development services, which it defines as “necessary social assistance, welfare services and appropriate care” to vulnerable persons such as children, the elderly, and the impoverished (DSD, 2020). The department functions as the central manager of social security, social insurance policies and activities throughout the country, and acts as the main conductor of welfare activities. Understood as the orientation of development - economic and otherwise - towards social aims, social development is a direct response to forms of development that have given rise to inequitable and unjust social outcomes, holding particular relevance in the post-democratic South African context (Midgley, 1999; Little, 2002).

A point of consternation then, is the national government’s confession that the mechanisms and processes by which social development is in fact implemented in South Africa are “not optimal.” The self-same Department of Planning, Monitoring, and Evaluation (DPME) report reveals that ‘not optimal’ is an understatement, further admitting that “government funded [social welfare] service...is often plagued by inefficiencies, inadequate funding, competition for scarce resources, and inadequate monitoring and oversight of services delivered” (Department of Planning, Monitoring and Evaluation, 2016, p. 2). The DSD appropriates an approximate average of 15 percent per annum from the national fiscal budget - equating to more than R300 billion in 2020 (National Treasury - Republic of South Africa, 2020) . Given the constitutional mandate for social development, and with the prospect of inefficacy and even failure as acknowledged by the DPME, closer scrutiny of national social development activity, and it’s outcomes, is warranted.

This research documents a quantitative assessment of the social development practice of the Eastern Cape Department of Social Development, and the effect that has had on the citizenry of this province. This was

conducted as an exploratory, and experimental analysis. In the broadest terms, this research is a study of the national DSD praxis using the case of the EC DSD. This was achieved by imputing the relationship between categorical EC DSD financial expenditure and multidimensional poverty in the Eastern Cape province between 2008 and 2018, the period for which detailed, household level survey data is available.

1.2 Foregrounding the problem

Since democratization in 1994, there has been an intense focus on the progression of South African social development. Emerging from a history of grave systemic, racialized social and economic inequality, the country entered its democracy on the brink - marked by an institutionalised inequality between key resources such as sanitation, education, and healthcare, nearly two thirds of the country were living in extreme poverty (Özler, 2007). South Africa's new democracy represented more than a transitory shift of political institution. The country's constitutionalisation was in fact a transformative adjustment to its very socio-polity, steering a significant shift in the country's social development path.

Within the new constitution, adopted by assembly in 1996, the principle that underpinned the new Republic was heralded across the globe, both for its standard of democratic institutional reform, as well as its mandate of social and economic justice (Deegan, 1999). Corniced by the Bill of Rights (1953), the Constitution specifies the fundamental entitlements of South African citizens. Recognising the unjust socio-polity from which it emerged, and the historical deprivation of the majority of South Africans, the Constitution (1996) makes specific provisions for the rights of South Africans to all basic needs, such as healthcare, housing, sanitation, and education (Sections 26, 27, and 29).

Following the implementation of this transformative socioeconomic reform, the construction of the democratic South Africa was underpinned by the state's commitment to effecting justice through tangible social and economic change, through every organ of state autonomy. This commitment has been codified in various iterations of the national policy framework, from the initial *Reconstruction and Development Programme* (RDP) in 1994, culminating in the current *National Development Plan 2030* (NDP), installed in 2012. Through these policy frameworks, the state has continually expressed its developmental aspirations, as well as the targeted outcomes relevant to those aims. These outcomes are seeded in the articles of the Constitution, forming a rights-based approach to achieve social justice through a ensured minimum standard of living, equitable access, and a specific emphasis on correcting the country's severe, racialised economic inequality (Patel, 2005).

As the state sought to secure the minimum entitlements of the South African citizenry, it adopted an approach of “developmental social welfare as one of the key elements of meeting basic needs,” expressly targeted within the RDP (National Treasury, 2007). As explained by Gray (2006), within the developmental welfare paradigm, social development and developmental social welfare are in effect, one in the same. Within the national policy framework, social development is the theory that encapsulates social and economic goals in the reduction of poverty; developmental social welfare are the activities executed and coordinated by the state in the pursuit of those goals (White Paper for Social Welfare, 1997). As the state intertwined the two, it reformed social development services by integrating pre-existing welfare infrastructure and development programmes that existed under the domain of the Department of Social Welfare. Even after the RDP framework had been replaced by the *Growth, Redistribution and Employment strategy* (GEAR) in 1997, the state has maintained its social developmental approach (Patel, 2008). In 2004, the longstanding national Department of Social Welfare was evolved into the Department of Social Development (DSD). Within its most recent revision of the national policy framework, the NDP, social development efforts continue to target the reduction of poverty across dimensions of health, education, in addition to income, as a priority of its social policy (Taylor, 2012). The state has since moved away from the dialectic of “developmental social welfare,” although the practice it established has remained. The DSD remains the overseer of government-led social development, and forges ahead as its general in the pursuit of eradicating poverty and inequitable division.

More than two decades since democratic transition, and nearly a decade on from the unveiling of the NDP, the complete adoption of social development theoretic in South African policy is incontestable. The policy that followed democratization has been steered by a favourable ideological thrust. However, with nearly half the adult population living below the poverty line, and extreme income inequality the limited integration of that policy has restricted the realisation of redistributive and equitable outcomes (Plagerson et al. 2019). Estimates indicate that nearly half of the adult population are still living in poverty, unemployment rates remain exceedingly high, and inequality of income and resource access persists (StatsSA, 2015: 2017).

Therefore, it is no longer a question of ‘if’ the state does pursue social development: but rather, how effective its pursuit of social development has been (Gray, 2006; Plagerson et al, 2019). Therefore, there should be evidence demonstrating absolute or relative merit of social development praxis.

1.3. The research aim and research objectives

1.3.1 The research aim as problem statement

The problem statement giving rise to this research is as follows: there is both an incontestable imperative to enact social development, and an expressed commitment by the state to facilitate it. There is, however, little comprehension or scrutable evaluation of how effective this undertaking has been. The aim of this research, therefore, is to quantify and assess the DSD's social development praxis - ideology, process, and practice combined.

The overarching interrogative question, and related practical objectives accommodating the research aim are *whether measurable social development outcomes* - the reduction of multidimensional poverty - *demonstrate remarkable alignment or an inconspicuous relationship with the DSD's social development praxis* - the categorical financial investment in social development activities by the DSD. If the latter, it would belie the relevance of maintaining the current social development praxis path. This piece of research was conducted as a case-study of the Eastern Cape province. Representing a neglected portion of the country's geographic polity, the Eastern Cape represents an ideal study site for interrogating state-led development at the provincial level. This rationale is further elaborated in Chapter 3 (section 3.2.2).

Describing the actions of the DSD as a 'praxis' rather than 'process' alone, is a deliberate choice for this study. The importance of the accompanying intention implied by praxis is vital in establishing the role and responsibility of the DSD. Action, when undertaken as praxis embodies qualities of intention – incorporating the case-specific interpretation of theory into actionable practice, and not just a description of the practice itself (Smith, 1999). Different social environments are distinguished by the unique characteristics of that context, and South Africa is no exception. The specific outcomes targeted by the DSD capture the dimensions and characteristics of livelihood and well-being the Constitution, policy framework, and DSD have determined as social development, and therefore, development as theory. The developmental activities undertaken, coordinated, and invested in by the DSD embody the departments' development as practice.

1.3.2 Research objectives

The aim of this research is to quantitatively assess the merit of the EC DSD's social development praxis.. In order to establish a) a quantitative indicator for social development, measurable in the Eastern Cape, and b) an empirical model to establish the impact of the EC DSD, two primary research objectives (ROs) are fulfilled with this research:

RO 1: To establish a contextualised and empirically appropriate metric of wellbeing and livelihood as an indicator for social development
 RO2: To impute the relationship between committed DSD expenditure and investment effected through social development intervention, and measurable social development outcomes.

1.4 The conceptual framework

With the transformation of domestic institutions according to principles of justice, equity, and non-racialism, while acknowledging social redress, being the primary project of government, one such key institution was the national welfare system (Plagerson et al. 2019; Woolard et al. 2011). Decades on, the current composition of that welfare system can be observed as the policy and social infrastructure under the domain of the Department of Social Development (DSD). The DSD describes its function as “the provision of comprehensive social security services against vulnerability and poverty within the constitutional and legislative framework,” serving as the director and curator of social development activity in South Africa. The department functions as the central manager of social security as well as social insurance policies and activities throughout the country, and acts as the main conductor of welfare activities. (DSD, 2020).

The DSD derives its mandate from the Constitution, receives its directive from national policy, and is guided by the stratagem and targets embodied in the prevailing national policy framework (the NDP). The departments’ constitutional mandate is derived specifically by protecting “the right of access to appropriate social assistance”, specifically to “those unable support themselves and their dependants” (RSA 1996, Section 27); and the “rights of children to appropriate care”, defined explicitly as “basic nutrition, shelter, health care services and social services” (RSA 1996, Section 28) (DSD, 2020 [online]). The national policy directive of the DSD is rooted in the country’s array of social policies, including, but not limited to; the seminal White Paper for Social Welfare (RSA, 1997), the Social Assistance Act (RSA, 2004), the Child Care Act (RSA, 1983), and the National Development Agency Act (RSA, 1998) (DSD 2020).

Simply put, the directive of the DSD is to effect social development. Defined under the interpretation of the state, social development is the orientation of development – both as a process and as the outcome thereof - towards achieving social objectives. These social objectives have, since the implementation and removal of the RDP, remained. The prevailing directive of the DSD, contained within the NDP perseveres with the targeted reduction of poverty and inequality. This is directed and intended to target poverty within a

“multidimensional framework” which recognises the linkages between different components of wellbeing (National Planning Commission, 2012).

Translation of policy into practice has seen the DSD adopt three key channels to effect its directive of enacting social development. First, and most prolific, is the DSD’s role as facilitator of social security, executed by distribution of unconditional cash transfers, the ubiquitous social grants. In the 2019 calendar year, more than 17 million social grants were distributed by the DSD’s subsidiary agency, South African Social Security Agency (SASSA) (SASSA, 2020). This scope of distribution indicates a national dependency of a third of the total population (Plagerson and Ulriksen, 2013), at a cost amounting to the considerable proportion of 90% of the DSD’s total budget allocation (National Treasury, 2019).

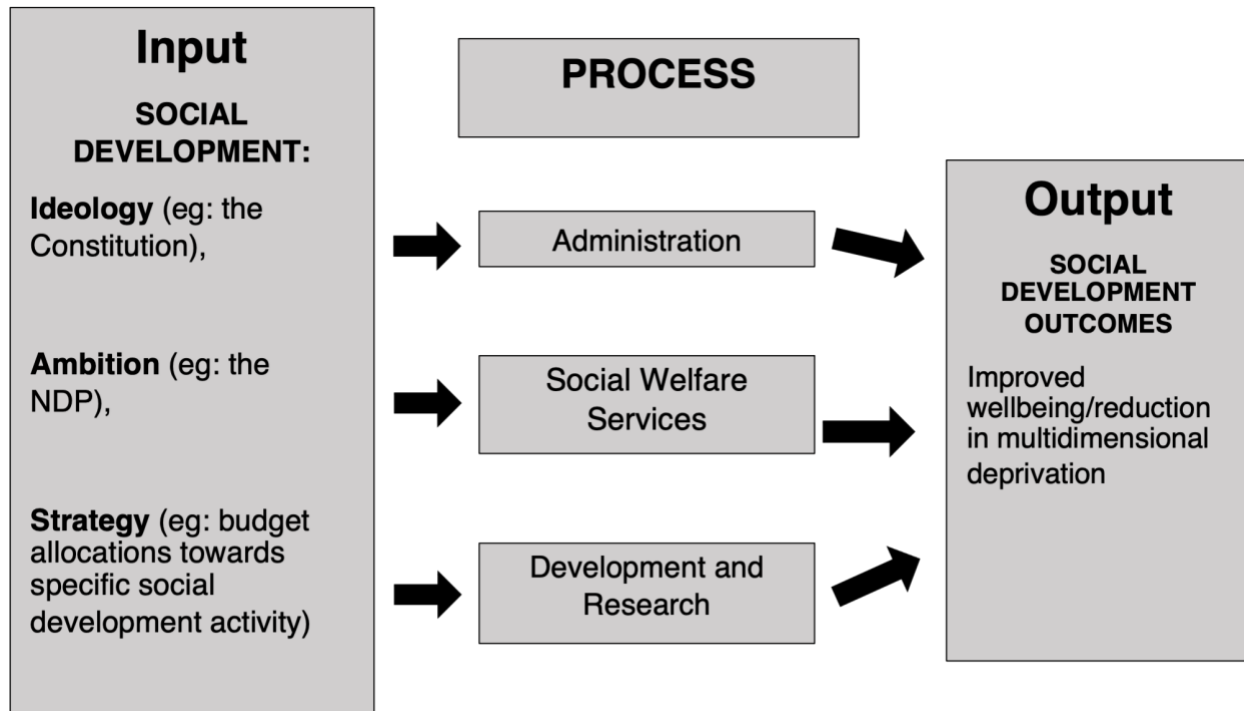
The second and third channel of social development activity are less direct. Through its regional provincial branches, the DSD allocates a not-insignificant quantum of financial resource towards so-described “sustainable development programmes,” The precise nature of individual projects, programmes, and tangible investments is varied and contextually specific. Education centres, community buildings, as well as instructive training events and workshops can all constitute a type of social development programme conducted by a provincial DSD. Lastly, regional DSD’s selectively contract Non-Governmental Organisations (NGO’s), Community-Based Organisations (CBO’s), and Faith-Based Organisations (FBO’s) through the disbursement of a conditional financial subsidy. The DSD’s additional subsidiary, the National Development Agency (NDA), complements this objective, as an “institutional capacity building” project for “civil society sector,” in order to maximise the sector's capacity for furthering social development (National Development Agency, 2020).

It is noted that illustrating the multiple contributing elements that inform the research aim would go a long way to facilitating a) the design of a methodological approach to achieve the research aim, and b) to compartmentalise the issues to convey the research aim, objectives and design, more simply to the intended audience. To this end, these elements are conceptualised for this research within the framework of General Systems Theory, and more particularly the Open Systems Model (OSM) first put forward by Katz and Kahn (1978).

The OSM depicts the repeated cycles of “input, throughput, output, and feedback” between an organisation and its external environment (Ramosaj & Berisha, 2014, p. 61). As appropriated for this study, the OSM depicts the spending and activities directed by the DSD towards social development as an input, and the results of this activity, measurable by relevant, contextualised metrics, as the output. These outputs, upheld

in the Constitution, defined by national policy, and targeted by the state, are those enshrined in the rights-based approach ensuring universal access to a minimum social floor (Patel, 2005). This social floor, determined by the state, is expressed within a multidimensional framework, interlinking the state's primary objective of poverty reduction and eliminating inequality, through access to education, healthcare, housing, and income (National Planning Commission, 2012).

Figure 1-1 An input-process-output model conceptualisation of the research elements



Source: Author's compilation, adapting the model of Katz and Kahn (1978)

The OSM component absent from the illustrative conceptualisation in Figure 1 – as a consequence of its absence in social development practice – is feedback. Katz and Kahn (1978) explained that feedback represents the leveraging of information related to the performance of the throughput (praxis) in order to “make the necessary changes to survive and grow”. It is this gap that this research seeks to fill.

1.5 Research rationale

1.5.1 Research Site: social development in the Eastern Cape Province

The Eastern Cape (EC) province was selected as research site for conducting the enquiry. The EC is a historically disadvantaged territory. It encompasses the so-called ‘former homelands’ of Ciskei and Transkei,

to which was supplemented a portion of the former Cape Province. A more elaborate motivation for the selection of the EC as research site is provided as part of the methodological design, in chapter three.

1.5.2 Research design, procedures and methods

The research design is a longitudinal quantitative design seeking to model the relationship of EC DSD expenditure and the change in the social circumstance of the EC citizenry. The design employs quantitative procedures, relying on fitting a univariate regression using the logarithmic form of the independent variable (the *process* of the conceptual framework) to measure the real, marginal changes in intra-programme expenditure, measured as percentage change per annum.

The dependent variable (the *outputs* of the conceptual framework), being SD praxis outcomes evidenced in the EC citizenry, is observed in the form of a multi-dimensional poverty index (MPI). The MPI derived for this study utilises household level data from the National Income and Dynamics Survey (NIDS) waves 1 (conducted in 2008) through 5 (conducted in 2017) providing five point estimates of multi-dimensional poverty at the household level in the EC province.

1.6 Reporting the enquiry

This dissertation is conventionally assembled. Chapter 1 orientates the reader to the study, identifying and elaborating upon the impetus for the study. The research problem identified, the chapter explains the research objectives, and aligned questions. A conceptual framework is introduced, to support both the procedure guiding a review of literature, and the establishment of the research design. As with all chapters, the chapter concludes with a summary, and implications for the research.

Chapter 2 is devoted to the review of literature, representing a secondary source which scaffolds the overarching proposition upon which the study is conceived. The review also isolates the factors necessary for the selection of a suitable metric for measuring the study dependent variable.

Chapter 3 presents and explains the research rationale, both as methodological design and research procedures and methods. Steps to ensure the rigour of the design and resulting procedures, are explained and significance thresholds selected for this research are presented. The ethical implications of conducting the research are elaborated, as well as data analysis and the results thereof are presented in Chapter 4.

The report is concluded in Chapter 5, presenting a) an overview of the study; b) a synopsis of the study findings; c) specification of what may be constituted as the limitations of the research; d) a proposition of the significance of the research; e) recommendations for further enquiry, based on the findings from the study.

1.7 Summary

The objective of this chapter has been to provide a foregrounding in a) the articulation of a problem statement, and b) to reinforce the development of a conceptual framework to guide a research enquiry focused on the problem statement. Two research objectives are developed to address the problem statement. The conceptual framework indicates the relationship between the independent and dependent variables, occurring as the process of social development expenditure and activity (social development practice) and social development outcomes (arising as capabilities, agency and wellbeing). The process and its outputs are fuelled by state ideology and methodology, recorded as the inputs of the open systems model approach to conceptualising the problem. This simple approach to systems modelling also indulges the development of a methodological approach to empirically exploring the relationship between processes.

However, the methodological approach and the prevailing comprehension of social development and its measurement, remain to be expanded upon. The two chapters which follow respectively undertake a review of pertinent literature, and develop the methodological design and research procedures for undertaking the interrogation of the process-outputs relationship.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The orientation to this research undertaken in the introductory chapter, introduced a conceptual framework shaped to the simple precepts of the Input-Process-Output model. The concepts introduced are population independent (following the distinctions drawn for example, by Markus (2008)) and generalised in the construction of a frame of reference by which the research is not only conceptualised, but also by which it is guided to proceed as an interrogation.

The concepts encapsulated in the study conceptual framework must consequently be elucidated beyond the preliminary scaffolding achieved in the preceding chapter. This chapter undertakes that elaboration, as a review of the pertinent literature. The premise of this research being to investigate whether South Africa's state-led social development praxis – that is, ideology, process, and practice combined – is effectual, it is necessary to appreciate the process and output of the social development construct that respectively arise as *meaning* (process) and *measures* (output). Social development is observed to be a terminological idiom too easily abused and hence it is necessary to expand upon the political and economic origins of the term (meaning-process), as well as the empirical evidence (measures-output) by which social development can be argued as effectual.

The scope of literature analysis and synthesis that aligns most appropriately with this elaboration of conceptual form and function, is established as critical realist meta-narrative review (Berg and Nanavati, 2016; Wong, Greenhalgh, Westhorp, and Pawson, 2014; Saul, Willis, Bitz, and Best, 2013). While some authors argue the feasibility and hence, one must assume, necessity of meta-narrative review (see for example, Wong, Greenhalgh, Westhorp, and Pawson, 2014), others maintain there is no common standard or acknowledged guidelines for this style of review (Ferrari, 2015). Within what may be regarded consequently as a vague specification for realist meta-narrative review, it is proposed to adhere specifically to the meaning of narrative review as Ferrari (2015: p230) so succinctly conveys: “A periodic synthesis of knowledge is required ... to provide the best currently available evidence”. She adds that while an accepted form for narrative review does not necessarily exist, that reviews of this nature “may be organised in a chronological order, with a summary of the history of a research when clear trends are identified, or presented as a ‘conceptual frame’” (Ferrari, 2015: p231).

As befits this study, the goal is to bring together what can be regarded as generally, universally accepted understanding of both *meaning* (the SD process) and *measures* (SD outputs) of social development. Critical meta-narrative review indulges the historical development that typifies the generally accepted contemporary understanding of social development. Critical meta-narrative review similarly accommodates the historical perspective which characterises the emergence of what has become a predominant and universally accepted method for measuring social development outcomes.

Advancing within this frame of reference, this chapter is configured in two sections. The first (commencing with section 2.2) deals with how the ideology of social development as practiced by the DSD is derived, and the second addresses methodological approaches to measuring social development (commencing with section 2.6), concluding with the origins of and adoption of, what has become the de facto methodology for measuring social development outcomes. The first section will clarify the operational definition of social development as theory adopted by the state. In order to understand the ‘social’ in social development, a purview of development theory is required. Multi-dimensional components of ‘development’ prompt conflicting interpretations, and the permutations of the prioritisation of social, economic, and political variables in different development strategies obfuscate further. The critical factor, therefore, in deriving a definition for ‘development’ of any kind should be determining the impetus for the ‘development’ process, and in the case of the democratic South Africa’s pursuit of poverty reduction and equitable access, the impetus described has undoubtedly been social. Proposing a holistic, contextual-based definition of ‘social development,’ in order to fairly and succinctly assess an appropriate stance and approach to the concept as well as maintain consistency the study employs the definitions and approaches aligned with the specific targets of prevailing social policy. Considering social development to be the orientation of development – both as a process and as the outcome thereof - towards achieving social objectives through policy, the South African government has framed its approach within the NDP, as a ‘developmental state’ (National Planning Commission, 2012). The literature review describes the conceptualisation of the developmental state, and the appropriateness of this claim within the South African social development aspiration.

The second section of this chapter brings together the strands of literature documenting the emergence over time of a predominant and near-universal understanding of how SD is best measured, especially when attempting to mount comparative analysis. This literature informs the methodological instrumentation used in this study, more fully explained in the following chapter.

2.2 Social development: the theoretical position emerged over time

2.1.1 Putting the ‘social’ in social development

There is a multidisciplinary interest in the concept of development; and Remenyi (2004) adds that the disciplinary perspective of the development discourse influences the foci and emphases that arise as a result. This has led to some especially distinct approaches to the enactment and realisation of what (at least at the time) is held as development. Matthews (2004) notes that it is important to determine the impetus for development when defining it - and as noted by Midgley (1999) and Little (2002), historically, the concept has most heavily been associated with economic progress. As such, the incentive for development was conceived as the enabling of industrialisation, though the adequacy of this motivation for development has been thoroughly disputed in modern development discourse.

In the earliest stages of development discourse, the concept was conceived as to align to the norms and historical patterns of economic and social change in already-industrialised economies in order to gain access to, and partake in, the global economy (Gore, 2000; Landes, 1990). Prominent development theories between the 1950s and 1990s such as modernisation, or structuralist theories underpinned these approaches (Le Pere and waIkome, 2009). Modernisation theory thought itself to be a form of economic development evolutionism – that all societies were capable of undergoing the same progression as they transition from ‘traditional’ economies into ‘modern’ economies (Hettne, 1983: p250) . As the theory supposed, because western countries first reached modernity, the western world was held as the paradigm of how modernisation can and should take place in all societies; effectively rendering the process of modernisation a process of westernisation. Structuralist theories considered industrialisation to be the most important step in a countries developmental process (Önis, 1995: 98)

In the 1970’s and 1980s, a number of opposing theories arose in reaction to the notion of equating ‘development’ to economy and westernisation (Firebaugh, 2000: 327). Dependency theory, for example, interrogated the role of former colonial powers in the relative wealth, and standard of living disparity between core and peripheral nations (Firebaugh, 2000: 327). Other ‘anti-westernisation’ theories assumed an even more radical position - such as post-development theory – the theory that development in of itself is a flawed concept. Post-development theoretic is that development is a ‘pipe-dream’, and proposes abandoning the pursuit of ‘development’ altogether (Matthews, 2004).

For all the variations in development discourse over the 20th century, the concept was still most heavily associated with economic progress (Little 2002). With the enactment of economic development as the typified understanding, this period has marked a significant aggregate global economic growth. However, the gains accrued from this development trajectory have not been universal. Improvements in the global economy in the post-war period overshadowed the concomitant intensification of social deprivation in forms such as poverty and inequality, most severely in post-colonial contexts. The phenomenon of unequal development and intensifying inequality is considered to be ‘distorted development’ – where the formerly conventional notions of development have been actualised through industrialisation and economic growth but have not been accompanied by equitable gains in social well-being (Midgley, 1999).

So it follows, social development is development necessitated by the response to distorted development.

Put simply, social development is the orientation of development – both as a process and as the outcome thereof - towards achieving social objectives. The impetus arises from the contrary manifestations of distorted development, and thus particularly, but not exclusively, aimed at individuals and communities where social deprivation is most severe. Social development is then expected to be observable as the acceleration of socio-economic progress, incorporating political, institutional, and human capital development (Chang 2010). The South African NDP expresses this ambition, combining the benefit and imperative of reparative welfare, directing resources towards functional capacity development, simultaneously promoting private-public sector cooperation in this pursuit (NPC, 2012). This framework, targeting inclusive economic growth and poverty reduction, represents the South African government's ambition of social development within a ‘developmental state’ framework (NPC, 2012).

The South African government is one of a few who have self-identified as developmental states, a transparent signalling of the intention to build the state’s capacity to ensure social, economic, and institutional advancement (Edigheji, 2010). The claim to developmental state eminence by government may be considered novel, but the ambition is less so. The government of Ethiopia, though boasting entirely different structures of governance, also claims to be a developmental state, and Rwanda has been labelled developmentalist since its post-war recovery (Dejene & Cochrane, 2018). If the label of developmental state has usually only applied in hindsight though, how then does a state become developmental, and how does one assess the validity of its developmentalism?

2.3 Developmental state: the theoretical position emerged over time

2.3.1 Defining the developmental state

The developmental state, similarly to development, is an irascible concept to define. Chang (2010) surmises that the ‘developmental state’ cannot be modelled and applied universally across different contexts, further stating that the diminution of developmental statism to such a narrow framework is overly fundamentalist. Further arguments have claimed that the concept of developmental statism is beyond the scope of a model, where an exact set of criteria must apply. However, to retain intellectual consistency, a simple definition of the developmental state should be applied, so that numerous contexts and experiences can be directly compared.

The developmental state is usually understood as one that induces state-led development through some form of market-based intervention (Wade, 2018). The development can occur across any socio-economic variable, and there is no universal economic instrument to employ. The crux of developmental statism, in this interpretation, is the developmental instrument being leveraged through economic sectors, leading to development across both economic and non-economic dimensions. In the simplest terms of developmentalism, a state that facilitates development is not a recent phenomenon. The capitalist mercantilists of the 19th century employed state-facilitated export policies, and (in its most formative years) the United States of America once advocated for domestic industry protectionism (Johnson, 1999). Almost all states intervene in their economy to some extent, though not all are considered developmental states. In most instances, a country and its statehood have only been labelled developmental retrospectively (Nordhaug, 1997).

2.3.2 The evolution of our conceptual understanding over time

It is important to note, in drawing the evolving strands of developmental state discourse together, the emergence of a dichotomy. As indicated by Hsu (2018), the ‘classical’ developmental state and ‘modern’ developmental state should be separated conceptually - though it is important to understand how the one gave rise to the other.

The story of the so-called ‘Asian Tigers’ is well documented in the annals of development theory (Nordhaug, 1997), and there are countless recordings of their radical economic transformation, characterised by rapid industrialisation and unprecedented economic growth that now defines the classical developmental state.

Thus within that mould, the concept of developmental statism was the application of industrial and economic developmental policy such that high economic growth could be generated, and then directly reinvested into socio-economic development, under the direction of the state and its governance (Gopinathan, 2007). Though the interventionist and protectionist policies utilised in this period were aligned with the structuralist theories on development at the time, the impetus of the developmental intent remained state-led facilitation of social development (Önis, 1995).

Radice (2008) describes that the core of a classical developmental state is its innovative relationship with the private sector, beyond the scope of just economic policy. By contrast, the core of the modern developmental state is in its social development ambition. Hsu (2018) summarises it well, stating that a modern developmental state incorporates the industrial and economic policy focus of earlier, conventional iterations of the developmental state, whilst simultaneously incorporating an increasing focus on the capacity of the state itself to provide social goods, and facilitate social enhancement. Even Johnson (1982) resolved that a developmental state emerges from an ideological orientation, and not from an institutional blueprint – that to be a developmental state, development must be the prevailing philosophy of the state itself. Held up to scrutiny against this theoretical milieu, the South African government’s developmental aspirations can be regarded as aligned to the modern interpretation of developmental statism. This review must consequently turn to this conception (and does so in sub-section 2.5 to follow). Before this takes place, however, it is necessary to first consider the transition from articulation of developmental state ambitions, to the actuality of developmental statism.

2.4 Developmental statism in practice

To isolate the presence of the development philosophy within a state framework, the state’s modality for intervention should be assessed to measure the degree to which the state’s own development philosophy is implemented. Regardless of the exact nature of the policy instrument, a developmental ideology should be present in the language and remit of legislation in a developmental state (Evans, 2010). If the South African government intends to demonstrate developmental statism, it is reasonable to contend that it should try and emulate or replicate some positive forms of intervention proven by the antecedents.

2.4.1 The global perspective

In the case of the East Asian experience, a dominant theme was enduring transformation from ‘dependent’ economy (relying on capital and technological imports) to export-oriented economy. Another shared

characteristic was the restructuring of the respective domestic education sectors, as a form of investment in the economy's human capital (Gopinathan, 2007). Success in stimulating industrialisation was, in countries such as Hong Kong, South Korea, and Singapore experienced alongside rapid economic development after implementing import-substitution policies, increasing their total exports, which saw the reinvestment of surplus national income into public education (Önis, 1995).

Another popularised example of classical developmental statism was Japan, between the 1920s and 1990s. Johnson (1982) simplified the scope of the Japanese developmental state by reducing it to four elements. The first element was an efficient state bureaucracy, which could select key sectors to concentrate industrial policy. The bureaucracy was further responsible for constructing and adapting that industrial policy, as well as maintaining adequate (private) economic competition within the strategic sectors. Secondly, the Japanese developmental state maintained a political system that could consistently facilitate the operations of the state bureaucracy. The third element was the 'perfection' of governmental institutions – conventional public enterprises whose super-standard of operation, organisation, and planning, could be used as an “indicative influence” on broader economic activity. Lastly, Johnson (1982) attributes the Japanese developmental state to the foundation of the Japanese Ministry for International Trade and Industry (MITI), striking as it did, a balance between corporate governance and public bureaucracy as well as maintaining widespread support for research and innovation.

2.4.2 Criteria qualifying a state as 'developmental'

Developmental states are argued to share some 'institutional keystones' in their respective developmental framework, due to their prioritisation of state-led economic interventionism. However, the instance of developing economies, commonly shared structural deficiencies are often addressed using disparate modes of development policy. This is to ensure consideration for unique contexts.

Pempel very pertinently asks how “countries such as Japan, South Korea, and Taiwan (as well as, in some analyses, Singapore, Hong Kong, and, sometimes, Malaysia and Thailand) able to achieve their high levels of macroeconomic growth while most other so-called less developed countries have languished in the world's economic backwaters?” (Pempel, 1999: p137). He regards there to be competing explanations for this relative (Asian) success and remarks “As a consequence, I also believe the model is unlikely to be easily implanted by other countries seeking to replicate the East Asian experience” (Pempel, 1999: p138).

Replication may not be possible, for the circumstances of other developing nations are indeed distinct. Evans (2010), however, believes that positive developmental implications of strong state governance are a

transferable lesson from East Asia. Importantly, these are elements that do not define necessarily define the developmental state per se but which, when present, bolster argument for (effective) developmental statism. According to Pempel (1999) this includes the explicit intention to effect long term economic improvement, active intervention in economic activity, and a competent bureaucracy . He adds, tellingly, that it is evident that two forms of developmental statism emerges: the first is “‘plan ideological’, deriving their mission in terms of Marxian, class, and other objectives divorced from questions of economic efficiency per se” (Pempel, 1999: p140). In contrast, the plan-rational state is one which pursues “not blind ideological goals, but enhanced economic competitiveness” (Pempel, 1999: 140).

It is incontestable that the evidenced adoption of developmental ideology is in of itself, a partial qualification for developmental statism. However to track, measure, compare, and assess developmental statism and its impact on the social context, Dejene and Cochrane (2018) assert that some empirical evidence can be derived by utilising the ‘Building Stability Framework’ (BSF). According to this conception, the quality of the developmental state is assessed by evaluating the fairness of power structures; the inclusiveness of economic development; the competence of the judicial system; the effectiveness of public institutions; and the empowerment of regional governance. To undertake a detailed BSF analysis of the South African developmental state is tangential to the objective of this meta-narrative review, and indeed to the objectives of the study and is not attempted here. Instead, the following sub-section represents a redacted analysis of South Africa’s developmental state ambition. Accordingly, the analysis interrogates whether developmental ideology is present in the language and remit of legislation in development strategy. If this is found to be the cause, then a) it is evidenced that South Africa can indeed be considered a developmental state, at least in ambition and expression, if not outcome and b) the remit of this explicit ambition informs the parameters selected for this study’s empirical enquiry.

2.5 South Africa and developmental statism

Detailing the socio-economic development objectives the government has prioritised for achievement by the year 2030, the NDP delineates the South African government’s aspiration as a developmental state (National Planning Commission, 2012). As outlined in the concluding notes to the previous sub-section, if the government is assumed to embody precisely what it claims to in the NDP, then it is fair to assume that any presence of developmentalist ideology within the state framework would be a partial qualification for developmental statism.

The South African government has specifically targeted multiple dimensions of development, from the provision of basic resources, as well as social assistance to the most vulnerable, to the expansion of the public

health and education sectors. Further, there has been overt intent to transform the economy and improve the prevailing conditions of domestic markets, as well as address ecological sustainability (National Planning Commission, 2012).

Chapter 13 of the NDP details the intent of the South African government to become a developmental state by “immersing public service into the development agenda.... and insulating from undue political interference,” (2012: 407). The NDP further explains that State Owned Enterprises and particular private-public partnerships will be the main instruments for the state’s economic interventions, coupled with industrial policy and traditional modes of economic intervention. This economic interventionism, coupled to what must be remarked upon as an evidently holistic developmental agenda, leads one to conclude that the South African government has adopted a developmentalist philosophy as described by Johnson (1982).

Conscious adoption of developmentalist ideology by, and within the state, initiates qualification of South Africa as a developmental state. As charted in sub-section 2.4 above, however, it is the remit of this explicit government ambition which informs the parameters selected for this study’s empirical enquiry. Alternately stated, the state’s social developmental goals, embodied, undertaken and conveyed by the explicitly named state machinery – the Department of Social Development – are the object of analysis. These goals can be subjected to analysis. Were the SD outcomes arising from the goals of the SD process (per this study’s conceptualisation) to demonstrate a favourable and significant relationship with the process activities, it would oblige conclusion the parameters of South Africa’s state developmentalism have been met. Attention is necessarily brought to bear upon the inalienable fact that SD is not the only trajectory of development. This is acknowledged, but it is essential to measure the extent to which the ‘social’, in social development, is being effected. To do so requires, however, a suitable metric of social development. The analysis of the literature therefore turns to social development metrics, in the following sub-section.

2.6 Methodological approaches to measuring social development

Understanding SD to be the improvement in multidimensional wellbeing, which is understood as the process along which poverty and inequality are eradicated, measuring the changes in poverty should provide a frame of reference for social development effort. At the outset, it is noted that SD had historically been argued as a product of economic and aggregated income growth (Midgley, 1995). However, the international trend has since been to evaluate SD as a function of improved wellbeing. The emphasis consequently falls upon the multidimensionality of wellbeing and therefore its inverse, poverty. Multidimensional poverty measures have come to be regarded as the de facto principle by which social development can be established. The section

advances a contextualised elaboration of the leading multi-dimensional approaches to SD measurement, being the capabilities approach and the basic needs approach. Widely used measures borne from these approaches, namely the Human Development Index (HDI) and its advancement, the Multidimensional Poverty Index (MPI). This part of the review concludes with evidence of the employment of the Alkire Foster (AF) method as the predominant approach in SD measurement in South Africa.

2.6.1 An overview of multidimensional approaches to poverty

With the enactment of economic development as the typified understanding of development over the last century, there has been a historical preoccupation with aggregated income measures as a proxy for wellbeing (Dreze and Sen, 1995). However, as theoretical and practical approaches to poverty have evolved, so has the understanding that poverty measured across income and consumption is inadequate. Income is a necessary component of livelihood, though, if poverty is conceived of as an “insufficient wellbeing” that should account for non-monetary factors as well (Bourguignon and Chakravarty, 2003). As a necessary, but insufficient indicator of wellbeing, monetary measures fail to consider the aggregation of income across a population, as well as the supplementary components of wellbeing that make up a satisfactory life (Hicks and Streeten, 1979; Baster, 1972). The complexity of wellbeing in all its subjective interpretations means that no single measure will prove comprehensive (Barrientos, 2010). Different multidimensional approaches to poverty have been conceived to address the most glaring inadequacies of monetary approaches, and to incorporate the most pertinent dimensions of wellbeing (Streeten and Burki, 1978).

2.6.1.1 The capabilities approach

Marking a fundamental philosophical shift in the definition of poverty, the premise of the capabilities approach is to reframe poverty, not as a deprivation of physical goods, but of capabilities themselves. The capabilities that represent wellbeing are the “freedoms” that allow individuals to enact agency, so that they might exploit their means of living to form the manner of living that they choose (Sen, 1997; Nussbaum, 2002). The capabilities approach is therefore not a measure of what people have, but what they are able to do - to effectively separate the measures of means (income) from ends (wellbeing and livelihood) (Crocker, 1995; Todaro and Smith, 2012). An important critique of the capabilities approach is the “operationalisation” of the capability framework into a quantifiable metric (Stanton, 2007). The capabilities that define human agency are intangible, discarding any notion of empirical assessment, and there is no universal consensus on a minimum set of capabilities so as to distinguish poor from non-poor (Laderchi, Saith, and Stewart, 2003). It is argued by Sen and Foster (1997), however, that if capabilities were to be deemed basic and vital enough

that no individual would choose to forego them, then constraints to those capabilities should be measurable by proxy of some constraints to the means needed to enact those capabilities. Attempts to form a definitive list of minimum capabilities have varied, though the most prominently recurring indicators have been health, nutrition, and education (Alkire, 2002; Desai, 1995; Qizilbash, 1998)

2.6.1.2 The basic needs approach

The Basic Needs Approach (BNA) is an approach to poverty aimed at addressing the most basic needs of the impoverished – these ‘needs’ are derived from the works of Albert Maslow and Pitambar Pant, ranging from physiological, life-sustaining resources (such as shelter, nutrition, and health), to psychosocial needs based on “self-actualization” (such as education) (Emmerij, 2010). This approach differs from the CA in that the conceptualisation of basic needs are not as a means to an end, but as the end itself. The BNA has traditionally been adopted in policy which targets the most severe dimensions of deprivation in the most extreme contexts, with BNA practitioners generally advancing the provision of social services and public goods (Sethuraman 1985). The strength of the approach is that it addresses non-financial dimensions, though it is not without its weaknesses.. Some key issues arising from BNA are rooted in the definition and conceptualisation of a “basic needs package.” The conceptualisation process requires a subjective value-judgement to define a package of needs, particularly one that is context-sensitive, giving rise to three distinct challenges; the subjectivity of “need”, ranking a hierarchy of needs most apt for policy targeting, and the heterogeneity of resources deemed necessary across different sociological contexts (Streeten and Burki, 1978; Stewart, 1989; Jolly, 2010).

2.6.2 Multidimensional poverty measures

There can be no universal measure without a consensus on a universal set of dimensions that comprise comprehensive wellbeing (Barrientos, 2010), although it is important to consider the multiple facets across which deprivation and poverty can be experienced. For the purposes of poverty analysis, it is possible to form a definitive set of dimensions by which to identify deprivation, such as income, employment, nutrition, education, and health, at the sake of omitting important but impracticable dimensions, such as security and inclusion (Sen, 1993; Thorbecke, 2005). These measures are limited, but useful, and have been adopted widely to assess multidimensional poverty levels in specific countries and regions, across components as relevant and feasible as possible (Alkire and Santos, 2014).

2.6.2.1 The Human Development Index

The Human Development Index (HDI) was among the first attempts at measuring poverty and deprivation across dimensions other than income and consumption (Stanton, 2007) (Todaro and Smith, 2012). Drawing from the CA, the index combines three proxies of capabilities for a satisfactory wellbeing: health, education, and a decent standard of living, using indicators of life expectancy, mean and expected years of schooling, and the logarithm of Gross National Income (GNI) per capita (Ghislandi et al, 2019). The HDI was introduced by the United Nations through the seminal Human Development Report (1990), and have regularly calculated a country-level HDI for all member states since. The computation of the index has evolved since its inception, reflecting the lack of consensus on the relative importance of factors that contribute to individual wellbeing (Ghislandi et al, 2019). The index has been criticised for its selection of indicators, both for being an inaccurate representation of true wellbeing (Lind, 1992, Dasgupta and Weale, 1992, Srinivasan, 1994, Sagar and Najam, 1998, Chibber and Laajaj, 2007); data concerns regarding availability, accuracy and quality (Murray, 1993, Srinivasan, 1994); and the subjective decision making in the choice of its aggregation and weighting (Kelley, 1991, Srinivasan, 1994a, Ravallion, 1997). Social development outcomes are not all measurable, although specific manifestations of deprivation might be observable. There is vast literature on selecting suitable indicators, though there is no completely objective model (Kovacevic, 2010). In the 2010 Human Development Report, the UNDP recognised that despite the contribution the HDI made in forming a comparable measure of poverty across dimensions other than income, it still omitted “many [choices] that people may value highly—economic, social and political freedom, and protection against violence, insecurity and discrimination, to name but a few.”

2.6.2.2 Introducing the MPI and the Alkire-Foster method

The Global Multidimensional Poverty Index (MPI) is an internationally used, comparative measure of multidimensional poverty, built on the fundamentals of the CA. The Global MPI was first published in the Human Development Report (2010) by the UNDP, as a novel measure that could identify and decompose the dimensions of poverty experienced to a community, household, and even individual level. The index measures poverty - interchangeably used with ‘deprivations’ - as they overlap across three dimensions: health, education, and living standards (UNDP, 2010). These three dimensions are measured across ten weighted indicators, and an individual (or subgroup) is identified as multidimensionally poor if they are deprived across one third of the dimensions (Alkire and Foster, 2011). The specific indicators contained within the Global MPI intend to “complement traditional monetary poverty measures by capturing acute deprivations” in three dimensions of poverty, most commonly associated with severe contexts (Alkire and Foster, 2011). The Global

MPI has been scrutinised, much like the HDI, for its subjective and normative definition of poverty, the Global MPI is also data-intensive and non-universal, and the assignment of relative weights across dimensions is arbitrary (Fransman and Yu, 2018; Alkire and Santos, 2016)

The MPI and its methodological execution was developed by Sabina Alkire and James Foster, and is known as the Alkire-Foster method. Numerous countries have constructed novel, contextually specific national MPIs using this method, as the advantage of a multidimensional measure that is: complimentary to other measures, can be used over time, can be broken down by individual dimensions and indicators and can be decomposed by population group make it a useful tool for policy making and development planning. These indices have been used extensively to inform policy, with examples such as Ghana, Angola, the Seychelles, and Sierra Leone (OPHI, 2020)

Estimation of the MPI was based on the ‘counting’ methodology developed by Alkire and Foster (2008, 2011). This method has several advantages. First, the Alkire–Foster (AF) method is flexible, allowing for the inclusion of any number of dimensions. Secondly, the method follows a counting approach in its determination of who is multidimensionally poor, which is a better approach when dealing with ordinal dimensions. Lastly, the AF method employs a more rigorous way of identifying the poor—combining the counting approach to identify the poor, and then ‘adjusting’ that finding with measures of the breadth, and depth of the said poverty

2.6.3 Applications of the AF-method in South Africa

Numerous studies have applied the AF-method in South Africa. The first application was by Alkire and Santos (2014), using the 2003 World Health Survey and utilising the same dimensions and indicators as within the Global MPI. Statistics South Africa (StatsSA) published a novel, nationally derived metric from the AF-method that year, dubbed the South African Multidimensional Poverty Index (SAMPI). The SAMPI was calculated using the national Census 2001 and 2011, adjusting the indicators from the Global MPI to overcome data constraints as well as add a new dimension of poverty measured - economic activity - to reflect “country specific conditions and needs” (StatsSA, 2014). Other studies have since applied the SAMPI framework, making adjustments to account for data limitations when needed. Finn et al. (2013) calculate multidimensional poverty in South Africa at the household level between 1993 and 2010, using two different datasets the Project for Statistics on Living Standards for Development (PSLSD) 1993, and the second wave of the National Income and Dynamics Survey dataset in 2010. Woolard et al. (2013) used the first two waves of the NIDS data for 2008 and 2010 to calculate national household level multidimensional poverty, while

Pasha (2016) applied the method to data from NIDS between 2008 and 2012 to measure the impact of cash grants on households nationally. Mushongera, Zikhali, and Ngwenya (2015) used the AF-method to estimate multidimensional poverty in Gauteng province between 2011 and 2013 at the household level using the GCRO Quality of Life survey.

2.7 Summary and implications

This chapter set out the rationale for SD and for SD measurement, in the form of a meta-narrative review. This form of review having been established as the appropriate form for reporting the scope and logic of our understanding, as it relates to SD and SD measurement, the chapter showed how SD as a concept is an outcomes of ‘development’ thinking, this having transformed from the welfare economics of the earlier part of the past century, to a capabilities thinking with Sen in the 70s, and then again to an amalgam of the two strands, acknowledging that social development leans both to ‘means’, as well as ‘ends’. The former is required for there to be agency in acting upon one’s ends. The measurement of SD is achieved through the measurement of outcomes of SD intervention, in the form of ‘ends’. These ends, targeted by that state, guided by public policy and effected through direct intervention, are argued to be measurable by multidimensional wellbeing, and therefore its inverse, multidimensional poverty .

For this study, the implication is that the demonstrable praxis of the state will be evaluated according to the discerned impact of SD investment of the EC DSD (the EC being selected as a research site) on multidimensional poverty. This will require isolation of SD investment in direct SD intervention (as a representative measure of SD *process*) and what is promoted as an improvement in the quality of life of the citizenry of the research site (this being representative of SD *outcomes*, in the context of the input-process-output model adopted as conceptual framework for this study). This is conceived and specified as a research design, and research methods and procedures, in the following chapter.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGICAL PROCEDURES

3.1 Introduction

This chapter elaborates the research design and methodological procedures which are devised to pursue the overarching research question. This is achieved as an assemblage of two parts., arising as sections. The first section describes the research design. The second section explains the research methods adopted to undertake the nature of the enquiry, indicated by the form and scale of the research objectives.

Farrugia, Petrisor, Farrokhyar and Bhandari (2010, online) cite Hulley et al (2007) when they point out that “questions ... arise out of a perceived knowledge deficit within a subject area or field of study”. The perceived knowledge deficit serving as impetus for this research, is the dearth of understanding of the extent to which SD praxis effects SD outcomes. There is both an incontestable imperative to enact social development, and an expressed commitment by the state to facilitate it. There is, however, little discernment or scrutable evaluation of how effective this undertaking has been. The purpose of this research, therefore, is to establish a quantitative measure, whether the DSD’s social development praxis - ideology, process, and practice combined – is effectual. This overarching question drives both the research design and research methods. Were measurable social development outcomes fail to demonstrate a remarkable alignment and relationship with the DSD’s social development praxis, it would belie the relevance of maintaining the current social development praxis path.

Consequently, fulfilling the the research objectives (ROs) arising in Chapter 1 to be fulfilled are: is achieved respectively:

RO 1: To establish a contextualised and empirically appropriate metric of wellbeing and livelihood as an indicator for social development.

RO2: To impute the relationship between committed DSD expenditure and investment that is effected through social development intervention, and measurable social development outcomes.

Fulfilling these objectives requires, respectively:

- RO 1: The computation of a novel Multidimensional Poverty Index (MPI) using the Alkire-Foster (2011) method (AF), as a contextualised, domesticated metric of targeted social development outcomes wellbeing and livelihood.
- RO 2: Quantitative assessment of the relationship between social development intervention, and changes in that MPI measured over the investigation reference period employing econometric

regression modelling as guided by the Generalised Linear Model (GLM) proposed by Papke and Woolridge (1996) and suggested by Alkire et al (2015) for utilising an AF-derived outcome variable.

The remainder of this chapter sets out the research design and research methods to fulfil these two research objectives.

3.2 The research design

This section articulates the research design, explaining the selection of the research site, the research variables and units of observation, and ethical considerations.

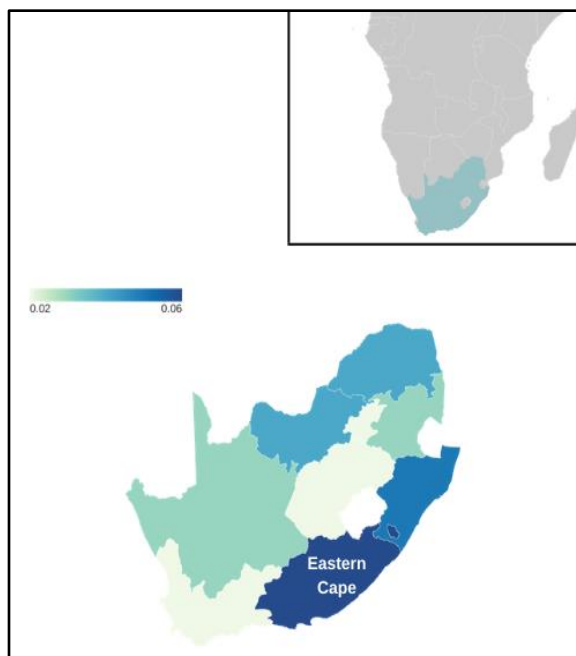
3.2.1 Nature of the research design

This study was designed as an exploratory, population-level, longitudinal investigation of the impact of state-led social development in South Africa, using the case study social development activity coordinated by the EC DSD and its empirical relationship with measurable social development outcomes. As explained by Andrienko and Andrienko (2006: p3), exploratory analysis of quantitative data is the use of traditional methods beyond the constraints of “hypothesis testing,” but rather, in the aim of “hypothesis generation.” In order to make such an investigation meaningful, there must be a specified object of investigation, a purpose for that investigation, and predefined limitations and constraints on that investigation (Tukey, 1977: Klir, 1985: Zhao et al, 2011). Accordingly, the purpose and object of investigation for this study is defined by its stated aim - illuminated by the stated research objectives -, and with the study’s limitations intrinsic to its methodological form, as secondary data analysis. These limitations are elaborated upon in Chapter 4.3

3.2.2 Study location

Scrutiny of provincial social development reporting revealed that the Eastern Cape provincial DSD demonstrates the most complete record of performance reporting in the public domain. Given the importance in a longitudinal study of establishing as complete and comprehensive a data set as possible, along with this province’s status as a neglected portion of the country’s geographic polity, the Eastern Cape represents an ideal study site for interrogating state-led development at the provincial level.

Figure 3-1 South Africa by measure of South African Multidimensional Poverty Index (SAMPI) 2011



Source: SALDRU (2014), compiled by the author

The present-day Eastern Cape province amalgamated the former Ciskei and Transkei ‘homelands’, and a portion of the former Cape Province. However, as Noble, Zembe and Wright concluded in 2014:

Former homeland areas continue to have significantly higher levels of deprivation and poverty than the rest of South Africa. Of all the former homeland areas, the erstwhile Transkei in the Eastern Cape has the highest levels of deprivation (measured using the Index of Multiple Deprivation for 2011) as well as income poverty. Indeed, the deprivation gap between former homelands and the rest of South Africa has not declined in the period 2001 to 2011. Noble, Zembe and Wright (2014, 1).

Ngumbela, Khalema and Nzimakwe more recently conclude as follows:

The overwhelming finding is that after more than a decade of democracy, the Eastern Cape province remains trapped in structural poverty. This shows in all aspects of its demographic, health and socio-economic profiles. Methods, measurements and statistics vary, but from the various studies and data sets one can attest that the majority of the population still lives in poverty. Ngumbela, Khalema and Nzimakwe (2020, 1).

These observations contribute to the selection of the Eastern Cape as a prime research site for evaluating the social development changes effected by the investment of state resources by the provincial DSD. Additionally, it is noted that the provision of social development data by the provincial departments of social development varies in quality and completeness. The Eastern Cape provincial DSD makes available a reasonably complete record, which can be supplemented by national Treasury data, rendering a complete

independent variable data set. It is hence the impoverishment and manifest lack of traction in improvement in circumstance since 1994, together with the availability of socio-economic data and provincial social development investment data, which distinguish the Eastern Cape province as an appropriate research site for this study.

3.2.3 Variable definition and units of observation

As a longitudinal analysis of EC DSD expenditure, the independent variable observed is the EC DSD's expenditure-by-departmental-programme (in ZAR), per year. The logarithmic form of these units is taken to measure the real, marginal changes in intra-programme expenditure, measured as percentage change per annum. The dependent variable, being SD praxis outcomes evidenced in the EC citizenry, is observed in the form of a multi-dimensional poverty index (MPI). The MPI derived for this study utilises household level data from the NIDS survey waves 1 - 5. The MPI computed from the sample set is therefore at the population level, decomposable by geographic (provincial) region.

3.2.4 Ethical considerations

This research has not gathered information from any human subjects, exploiting only data freely available in the public domain. Consequently, the research does not intrude on privacy, nor does it require gatekeepers' permission in respect of data scoured for both the research variables.

The School of Built Environment and Development Studies processed the necessary ethical clearance for this research to proceed, from the relevant UKZN institutional research ethics committee.

3.3 Constituting the research as procedure and method

3.3.1 Data sources and data collection

The longitudinal study period necessitates an unbalanced longitudinal panel data set in respect of both the independent variable (SD expenditure, representing SD praxis) and the dependent variable (SD outcomes, represented by a novel Multidimensional Poverty Index (MPI). The MPI for this research enquiry was derived from the data contained within the nationally representative, household- level National Income and Dynamics Survey (NIDS) waves 1 (conducted in 2008) through 5 (conducted in 2017). The use of the NIDS panel set allows for providing five point estimates of multi-dimensional poverty at the household level in the EC province. This research followed the process set by Brophy et al (2018) for merging the 5 waves of NIDS

data within Stata, as well as prescribed protocol for dealing with non-response within the data set. Branson and Wittenberg (2019) describe the longitudinal and cross-sectional weights applied to the NIDS data in order to form valid population-level estimates from the NIDS subsample. The calculation of the MPI was achieved using the Alkire-Foster Method (2011), in Stata 15.

Data in respect of the IV was scoured from the annual reports of the EC provincial DSD, available for the financial years 2009/10, and 2011/12 - 2017/18. Where data was incomplete or lacking (for the financial years 2008/09, and 2010/11), the financial data was extracted from Vote 4 of the Eastern Cape provincial budget statements for the corresponding years, available from the National Treasury records in the public domain. This enabled the construction of a panel data set of SD programmatic expenditure in the period spanned by the financial years ended March 2008 and March 2018 and hereinafter referred to as ‘2008 – 2018’. These records of expenditure were then adjusted for inflation using the base year 2011 according to the CPI published by StatsSA (2019, online).

It is observed that in March 2014 the EC DSD redesigned the programme specifications of its activities, aligned with the implementation of a new “Family Based Service Delivery Model” (EC DSD Annual Report, 2014: 9). The implementation of this delivery model saw the introduction of two new programmes, as well as the reallocation of original sub-programmes to other categories to better reflect the departments “position as the coordinator and champion for the overall social development of the individual, family, and the community” (EC DSD Annual Report, 2014: 9). The restructured programme specifications which were implemented and maintained for the remainder of the investigative period were: Administration, Social Welfare Services, Development and Research, as well as Children and Families, and Restorative Services.

3.3.2 Devising a novel MPI as a dependent variable metric

The AF method is a framework for measuring multidimensional poverty consisting of two stages: an identification stage, and an aggregation stage. Before commencing with the aggregation stage, the AF method requires the preselection of particular dimensions of analysis, with one or more indicators for each dimension. This research derived the dimensions and indicators from those stipulated in SAMPI, and adapted to best capture the same contextualised dimensions but accommodate the differences between NIDS and the Census as a source of household data. These dimensions, their corresponding indicators are depicted in tables 3-1 and 3-2 below. The chosen internal thresholds for this novel MPI are the same as SAMPI, with a multidimensional poverty threshold of $k = 0.33$. This means a household is scored as multidimensionally deprived if the sum

of its weighted deprivation score is equal to or greater than 33.3%. The South African Multidimensional Poverty Index measures deprivation across four dimensions of interest to the national development agenda: health, education, standards of living, and economic activity, across all nine provinces.

Table 3 - 1

South African Multidimensional Poverty Index (SAMPI)

Dimension	Indicator	Cut-off
HEALTH	child mortality	If any child under 5 died in the last 12 months
	educational attainment	If no household member aged 15 or older has at least 5 years of school
EDUCATION	school attendance	if any school-aged child (7-15) is out of school
	unemployment	If all adults (15-65) in the household are unemployed
ECONOMIC ACTIVITY	cooking fuel	If household uses paraffin/wood/coal/dung/other/none for cooking
	heating fuel	If household uses paraffin/wood/coal/dung/other/none for heating
	lighting fuel	If household uses paraffin/candles/nothing/other for lighting
	asset ownership	If household ownership of radio, television, telephone, refrigerator, or car
STANDARD OF LIVING	access to water	If household dwelling has no piped water
	access to sanitation	If household dwelling has no flush toilet
	quality of residence	If household dwelling is classified as informal/traditional

Source: SALDRU (2014), compiled by the author

Table 3 - 2

Novel Multidimensional Poverty Index (MPI)

Dimension	Indicator	Cut-off
-----------	-----------	---------

HEALTH	child mortality	If any child under 5 died died in the last 12 months
	food security	if household full imputed income is below food poverty line)
EDUCATION	educational attainment	if no household members aged 18 or older has completed secondary schooling
	school attendance	if a child currently cannot attend school due to transport/finances
ECONOMIC ACTIVITY	unemployment	If all adults (15-65) in the household are unemployed
	cooking fuel	If household uses paraffin/wood/coal/dung/other/none for cooking
	heating fuel	If household uses paraffin/wood/coal/dung/other/none for heating
	lighting fuel	If household uses paraffin/candles/nothing/other for lighting
STANDARD OF LIVING	access to electricity	if household does not have access to national electricity grid/sufficient alternative
	access to water	If household dwelling has no piped water
	access to sanitation	If household dwelling has no flush toilet
	quality of residence	If household dwelling is classified as informal/traditional
	asset ownership	If household ownership of radio, television, telephone, refrigerator, or car
	housing floor material	if household dwelling floor material is mud/earth

Source: Author

For each indicator, a ‘deprivation cut-off’ is applied to express the minimum requirements to be considered ‘non-deprived’ as well as a relative weight such that the sum of all indicator weights is equal to one. These criteria are then used to calculate a single unit’s shared weight of deprivations represented by deprivation score ‘ci’. The weighted deprivations experienced by a household is then compared to a predetermined poverty cut-off ‘k’, whereby if the sum of weighted deprivations $c_i > k$, the household is then identified as multidimensionally poor.

The aggregation stage of the AF method is used to calculate the proportion of households within the study identified as multidimensionally poor in the form of multidimensional headcount ratio H

$$H = \frac{q(k)}{n}$$

where $q(k)$ is the number of households identified as multidimensionally poor, and n is the total number of households. Following the calculation of a headcount ratio, the intensity of deprivation for all households, or A , is computed by taking the average share of weighted indicators in which poor households are deprived.

$$A = \sum_{i=1}^q \frac{c_i(k)}{q(k)}$$

The final MPI 'score', or adjusted headcount measure M_0 is calculated as the product of H and A such that:

$$M_0 = H \times A = \frac{q}{n} \sum_{i=1}^q \frac{c_i(k)}{q(k)} = \frac{1}{n} \sum_{i=1}^q c_i(k)$$

M_0 is the sum of weighted deprivations experienced by households identified as multidimensionally poor, divided by the maximum deprivations that could be experienced if all households were to be identified as poor. M_0 is therefore influenced by changes in the number of households that are multidimensionally poor, as well as changes across dimensions of deprivation within households. The AF method allows for the decomposition of the unit of analysis, from a regional level, to household or even individual level. The study measured a population level estimate of AF measures for the Eastern Cape province between 2008 and 2018, by computing household level deprivation scores for the national sample, estimating the Adjusted Headcount Ratio (M_0), average intensity of poverty (A), and poverty headcount ratio (H) for the entire sample, and then decomposing the variables by province.

3.3.3 Considerations for fitting the regression model

3.3.3.1 Pearson's correlation coefficient

To measure the extent to which EC DSD spending allocations have a discernible impact on SD outcomes, the first step is to measure the correlation between the computed MPI against an existing, validated measure - the SAMPI - to ensure consistency against the SD variables of interest. This can be achieved using a Pearson's product moment correlation coefficient - denoted by r - as the two variables of interest (MPI and SAMPI) are binomially distributed. The Pearson's r coefficient (hereafter r) is a value between $[-1, 1]$ (Schober et al, 2018). The coefficient represents the measure of linearity between the two variables, with a substantially strong relationship being closer to 1 and a weaker relationship being closer to -1. A correlation coefficient cannot convey the direction of the linear relationship, therefore variables cannot be distinguished

as independent or dependent of one another (Mukaka, 2012;Akoglu, 2018). Correlation coefficients can only be interpreted as a test of association, not causal relationship (Falk and Well, 1997). A relatively strong association between the provincial MPI and relative SAMPI metrics will be considered sufficient to advance with the modeling of effects on the MPI over time.

3.3.3.2 Regression modelling

As an extension of correlation and association analysis, regression modelling can be used to describe and predict the relationships between the chosen variables (Zdaniuk, 2014;Baltagi, 2011) s. Ordinary Least Squares (OLS) - sometimes referred to as linear regression - modeling is the most typically used method. An OLS method estimates the predictive relationship between two variables - the direction of which must be preselected. For every observed value of the dependent variable, an OLS model calculates a corresponding fitted value value - the distance between which is known as the error term.

$$y_i = E[Y_i | x_i] + \varepsilon_i$$

An OLS model is denoted in the form in equation 1: where y_i is the **observed** dependent variable value, $E[Y_i | x_i]$ denotes the **predicted** dependent variable value for a given value x_i , and ε_i denotes the error term.

There are several classical assumptions required to produce a robust OLS model: There must be a linear relationship between the chosen dependent variable(s) and the independent variable; the correlation between the two cannot be perfect ($r = 1$), and it is assumed that there is no relationship between the different independent variables; it is assumed that the error terms are independent, with zero mean, constant variance, and have a normal distribution, and that the error term has a population mean of zero. Further, the independent variables cannot be correlated with the error term - an assumption referred to as exogeneity - and the error term has a constant variance - referred to as homoskedasticity. These assumptions must hold in order to produce unbiased coefficient estimates (Hutcheson, 1999;Jonsson, 1994;Schneider et al, 2010).

However, these assumptions may be inappropriate if the dependent variable is either binary, categorical, continuous or non-normally distributed. The linear regression model assumes continuous variables, between $(-\infty$ and $+\infty)$, with a constant variance, and normally distributed. These assumptions fail

when using an MPI. The MPI measure is a meaningful data value: it is a proportional measure, bound between [0, 1], though is unlikely to reach 1. As such, it cannot be regressed using a standard OLS linear model, though Generalized Linear Models overcome these limitations (Papke and Woolridge, 1996; Alkire et al, 2015).

3.3.3.3 Generalised Linear Models

Generalized linear models (GLMs) are an extension of classic linear models. Alkire et al (2015) suggest the use of GLMs in an approach as pioneered by Papke and Woolridge (1996) and demonstrated by Wagner (2008) Oberhoffer and Pfaffermayer (2009), and Faria et al (2020), as the preferred data analytic method for fractional outcome variables, and imperfect panel data sets, as they account for the bounded and discrete nature of the AF-type dependent variables.

A GLM, much like a standard linear response model, can be expressed as

$$y_i = E[Y_i | x_i] + \varepsilon_i$$

Where y_i is the dependent variable, $E[Y_i | x_i]$ is the conditional expression for the dependent variable (for a given x_i - the independent variable - the expected value of Y_i), and the error term. Because an OLS regression assumes that the error term has a continuous distribution, the dependent variable must have one as well, limiting the use of a fractional, count, or ordinal data for y_i Nelder and Wedderburn (1972). GLMs are an extension of the OLS model where the distribution of the dependent variable is not assumed to be continuous. In a GLM, the distribution of the dependent variable is specified itself. This allows GLMs to model qualitative and quantitative dependent variables, such as logit and probit models, and models for fractional data (Papke and Woolridge, 1996; Muller, 2004; Lee and Nelder, 2001) .

Unlike OLS, the dependent variable is not assumed to have a constant distribution and so it must be specified. Doing so means that GLMs require two components. The first is a specified distribution of y_i , from the exponential family such as Bernoulli, binomial, normal, and Gaussian distribution functions (Zheng and Agresti, 2000) . The second component of a GLM is a ‘link function.’ The link function, describes how the mean of the response and a linear combination of the predictors are related (McCullagh and Nelder 1989:

Faraway, 2006) The purpose of the link function is to convert the non-continuous, bounded dependent variable into a continuous, unbounded scale of $(-\infty$ and $+\infty)$.

The form of the GLM is denoted:

$$E(y_i | x_i) = G(x_i \beta), i = 1, \dots, N$$

Where $E(y_i | x_i)$ is the linear predictor, specified as $G(.)$ - the link function- for the expected predictor variable $(y_i | x_i)$. The function $G(.)$ can be chosen from any member of the exponential family.

3.3.3.4 The selection of AF-informed GLM method

This study used a Binomial GLM with a probit link function. The Binomial distribution is used to accommodate fractional dependent variable data, and the probit link function ensures positive fitted values for the dependent variable. The dependent variable specified as MPI is defined as the computed adjusted poverty headcount measure at the population level for the Eastern Cape. The approach suggested by Alkire et al (2015), taken from Papke and Wooldridge (1996), Gourieroux, Monfort, and Trognon (1984) and McCullagh and Nelder (1989) propose a quasi-maximum likelihood estimator (QMLE) method to estimate the parameter. The method follows the Bernoulli log-likelihood function:

$$l[y_i; \mu_i(\beta)] = y_i \log[G(x_i \beta)] + (1 - y_i) \log[1 - G(x_i \beta)]$$

It was observed that the EC DSD redesigned the programme specifications of its activities from the financial year March 2014/2015 onwards. The restructured programme specifications which were implemented and maintained for the remainder of the investigative period were: Administration, Social Welfare Services, Development and Research, **as well as** Children and Families, and Restorative Services. The functional activities coordinated by these programmes did not vary, and, as elaborated in chapter 4, neither did the spending in these programmes. The introduction of a service-delivery model provides opportunity to split the panel set into two models between 2008 - 2013, and 2014-2018. Alternatively, the functional activities coordinated under the restructured programmes can be collapsed into a single **Social Welfare Services** variable.

The independent variables specified are the log of the EC DSD categorised expenditure - each programme expenditure is defined as an additional log variable.

$$E(MPI|x) = G(\beta_1 + \beta_2 \log(DSD1) + \beta_3 \log(DSD2) + \beta_4 \log(DSD3)) \quad (1)$$

$$E(MPI|x) = G(\beta_1 + \beta_2 \log(DSD1)) \quad (2)$$

In its simplest form, the regression is univariate, with the independent variable specified as the log of EC DSD total spending. The logarithmic form of these units is taken to measure the real, marginal changes in intra-programme expenditure, measured as percentage change per annum. The MPI computed from the sample set is therefore at the population level, decomposable by geographic (provincial) region. The $G(\cdot)$ link function is specified as the standard normal (probit) distribution. Estimating the parameters is done by maximizing the log likelihood of the variable data denoted as $l[y_i; \mu_i(\beta)]$. The estimated scaled deviance statistic is calculated by the logarithm of a ratio of likelihoods. The scaled deviance statistic measures the goodness of fit between the observed data and the fitted values calculated by the model.

3.3.4 Significance thresholds for reporting the analysis

The use of available quantitative data presents the opportunity for empirical insight that can aid explanatory conclusions. The conclusions drawn will be descriptively based from the output of the AF-method MPI analysis. Utilising the AF method, aligned with the preexisting iterations of MPI analysis in South Africa (the SAMPI, for example), should ensure accurate and insightful results. There is expected to be some difference between the MPI output from this research against that of the SAMPI, based on the divergence in indicators and data sources. However, there is expected to be some overlap due to the dimensions captured. For the purpose of this research a Pearson's correlation coefficient was used to measure the extent to which the poverty indices overlap, with a threshold of 0.8 considered high, 0 nil, and -0.8 extremely inverse. A positive, strong correlation estimate should indicate accurate MPI results. The use of regression modelling to measure the relationship between EC DSD spending and multidimensional poverty is not expected to produce a predictive relationship, and all conclusions drawn from the regression should be considered exploratory. There is insufficient scope in this research to control for the exogenous influences on multidimensional poverty, and the model is designed to find an empirical indication that increased DSD spending is aligned with improved wellbeing, not predict its expected effect. Estimates that indicate a strong association would be strong grounds for informed speculation of its cause, especially if they are statistically significant. The significance thresholds selected for this component of the research are the 90% significance level ($\alpha = 0.10$). Due to the limited control for exogeneity, and specific model scope, the R^2 coefficient is anticipated to reflect little statistical explanatory power.

3.3.5 Validity and reliability

According to Heale and Twycross (2015), the rigour of a quantitative analysis refers to the achievement of validity and reliability of the applied model. Content and construct validity will be maintained by ensuring the research instruments - the MPI analysis, and regression output - are procedurally valid and replicable. Criterion validity, the extent to which a research instrument is related to other instruments that measure the same variables, is maintained by Following procedure of the AF-method. Internal consistency is attained by adhering to the definitions, approaches, and measures of social development and poverty in the South African context, as adopted by legislation and theoretic of the South African state. The predictive validity of this research analysis is supported by the statistical significance of the correlation and regression results.

3.4 Summary and implications

This chapter elaborated on the research design and methodological procedures prepared for this paper. In order to fulfil the research aim, the chapter conveyed the design of the analysis used to compute multidimensional poverty as a domesticated metric of social development outcomes, using the Alkire-Foster (2011) method. Thereafter, the modelled quantitative assessment of the relationship between social development intervention, and changes in wellbeing and livelihood measured over the investigation reference period were elaborated, as guided by the Generalised Linear Model (GLM) fractional response method proposed by Papke and Woolridge (1996) and as suggested by Alkire et al (2015) for utilising an AF-derived outcome variable. With the design considered, the methods devised, the data collected, it is possible to transform the data into the requited panel data sets, and to subject these to analysis. The report on the outcomes of this analysis are undertaken in the following chapter.

CHAPTER FOUR

DATA ANALYSIS

4.1 Introduction

The aim of this research is to establish whether the DSD's social development praxis is effectual. Undertaking the enquiry in the Eastern Cape province entertains isolation of the SD praxis of the provincial DSD. Two research objectives drive the enquiry and the goal of this chapter is to report the analyses undertaken in respect of these two research objectives, and to interpret these results. Only limited discussion is undertaken, this being reserved for the concluding chapter. The form of this chapter is an assembly of two sections. The first section – attending to the first research objective - details the computation of a novel MPI for contextualised evaluation of social development outcomes in the EC, this metric necessarily supported by the principles of multidimensional poverty measurement. The second section – attending to the second research objective – presents the results of the econometric modelling undertaken to assess the longitudinal relationship between SD investment in the EC, and SD outcomes in the EC.

4.2 A contextualised MPI for the Eastern Cape

The form of this section is to reiterate the first research objective. Secondly, to present the results of a computation of an EC MPI using the Alkire-Foster (2011) method (AF), as a contextualised metric of wellbeing and livelihood. Finally, to validate MPI estimates.

4.2.1 The first research objective

RO1: To compute a novel Multidimensional Poverty Index (MPI) using the Alkire-Foster (2011) method (AF), as a contextualised metric of wellbeing and livelihood.

4.2.2 Multidimensional poverty in the Eastern Cape province

Eastern Cape multidimensional poverty was estimated at the population level from 2008 - 2018, employing the NIDS data sets 1-5. Table 4-1 provides an overview of these results. The MPI is derived from the product of the headcount (H) and the average intensity of poverty (A).

Table 4 - 1 - Eastern Cape province MPI estimates

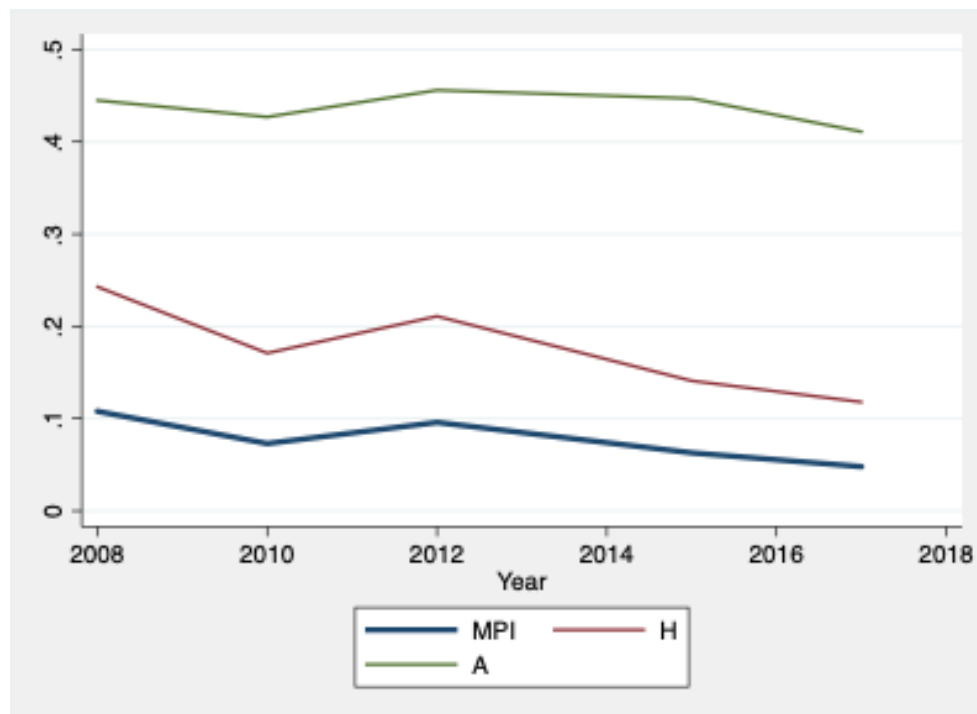
Wave	Year	Sample size	H	A	M0
1	2008	933	0,243	0,445	0,108

2	2010	845	0,171	0,427	0,073
3	2012	1027	0,211	0,456	0,096
4	2015	1173	0,141	0,447	0,063
5	2017	1304	0,118	0,411	0,048

Source: Author's calculations using, weighted NIDS data

The initial findings indicate that multidimensional poverty in the Eastern Cape decreased by roughly 55% during the study period. Both the headcount of multidimensional poverty, and average intensity of poverty experienced decreased, contributing to the substantial decline. It is observed that the MPI decreased between 2008 and 2010, increased between 2010 and 2012, and decreased substantially thereafter. Figure 4-1 depicts the changes in MPI estimates over time, indicating this shape. Decomposing the MPI measure by indicators elucidates the drivers of this change.

Figure 4 - 1 EC MPI time-series



Source: Author

Table 4-2 summarises the proportion of the Eastern Cape household population estimated to be deprived by indicator, by wave. The results of the MPI analysis for this study are promising, though they should be interpreted tentatively. Major fluctuations in indicators are likely to be caused by exogenous error. The greatest insight can be perceived in the long-term patterns of change across different dimensions of deprivation.

Table 4 - 2 Eastern Cape: portion of total household population deprived by indicator

Dimension	Indicator	2008	2010	2012	2015	2017
HEALTH	child mortality	2,85%	1,86%	2,37%	1,97%	1,70%
	food security	28,50%	35,28%	38,02%	34,61%	18,54%
EDUCATION	educational attainment	47,58%	43,72%	45,31%	44,98%	35,84%
	access to education	5,17%	0,03%	0,00%	0,00%	0,25%
ECONOMIC ACTIVITY	unemployment	10,05%	7,23%	11,86%	8,19%	6,92%
	cooking fuel	41,92%	31,45%	27,94%	22,38%	14,74%
STANDARD OF LIVING	lighting fuel	30,36%	23,09%	22,97%	18,30%	9,11%
	access to electricity	27,25%	29,09%	23,51%	18,72%	14,25%
STANDARD OF LIVING	access to water	48,19%	46,70%	47,26%	33,05%	42,69%
	access to sanitation	18,90%	22,34%	21,50%	35,83%	26,30%
	quality of residence	36,67%	36,95%	28,24%	28,59%	22,24%
	asset ownership	86,36%	79,80%	83,38%	86,37%	84,10%
	housing floor material	38,33%	26,97%	26,57%	15,24%	14,85%

Source: Author

In the health dimension, the indicator for child mortality decreased from 2,85% to 1,70% in 2017, and food insecurity decreased by almost 10 percentage points from 28,5% in 2008 to 18,53% in 2017. For both indicators, there was a positive fluctuation towards 2012, before decreasing thereafter. In the education dimension, the number of households deprived decreased steadily throughout the study period. The number of households that reported a deprivation of access to schooling based on finances, as well as the number of households without a matriculant declined, by roughly 12 and 5 percentage points respectively. The economic

activity dimension utilised a specialised, narrow unemployment definition. The indicator condition specified that all adults in the household must be unemployed to be considered deprived. The study finds that between 2008 and 2018, the total household unemployment declined from 10,05% to 6,92%, with a peak of 11,86% in 2012. There were substantial improvements in the standard of living dimension between 2008 - 2018. The greatest improvements, measured by total decline in percentage points, were the indicators of access to cooking fuel (-27,18), lighting fuel (-21,25), electricity (-13), and piped water (-5,5), which all declined over the study period. The number of households in traditional or informal dwellings (-14,43), and the number of households with inadequate floor material (-23,48) declined by 14,43 and 23,48 percentage points respectively. The indicator measuring asset ownership declined moderately, by 2,26 points. The number of households deprived of sanitation is the only indicator to have increased, doing so by 7.4 percentage points. The indicator of asset ownership remained steadily high throughout the reference period, fluctuating between 79.8% and 86.37%. The drivers of deprivation attributable for the most fluctuation during the study period are unemployment and food security, and the magnitude of their changes, as well as sensitivity to change over time is speculated to indicate precarity and vulnerability in these dimensions of wellbeing.

4.2.3 Validating the MPI estimates utilised for this research

To ensure the results were robust for comparability and replicability, the MPI estimates calculated in this study were compared to the SAMPI estimates for the closest possible period - NIDS wave 2 and SAMPI 2011 estimates. Despite using the same poverty cut-offs ($k = 0,33$) and equal-weighting structure as SAMPI, the novel multidimensional poverty estimates are generally higher than the SAMPI estimates. This could be due to the nature of the different datasets used (SAMPI utilised the national census, which has a different survey structure to NIDS), as well as variations in the sampling and weights of the NIDS data. Using a Pearson's correlation coefficient to measure the relationship between the MPI and SAMPI estimates yields a result of $r = 0,82$. This indicates a relatively strong, positive association between the two measures, an expected result given the overlap of dimensions and indicators between the two metrics. The study then estimated multidimensional poverty in the Eastern Cape province from 2008 - 2018, from the NIDS data sets 1-5. The decomposition by province is supported by the strong association between the MPI and SAMPI figures, though it is conceded as a limitation of this research that interpretation of these results at the provincial level should be done with caution.

Table 1 - Comparison of MPI and SAMPI estimates

2010 - 2011	2011
MPI estimate	SAMPI

Eastern Cape	0,073	0,06
KwaZulu Natal	0,079	0,05
Limpopo	0,047	0,04
North West	0,057	0,04
Mpumalanga	0,046	0,03
Northern Cape	0,064	0,03
Free State	0,037	0,02
Gauteng	0,047	0,02
Western Cape	0,04	0,02
South Africa	0,055	0,03

Source: Author and SALDRU(2014)

4.3 Assessing the longitudinal relationship between social development investment in the Eastern Cape and social development outcomes in the EC.

The form of this section is to reiterate the second research objective, and to present the results of an econometric modelling of the SD investment made by the EC DSD (these being the inputs, as defined in the study conceptual framework and documented in the first chapter of this report).

4.3.1 The second research objective

RO2: To determine whether a longitudinal relationship can be discerned between committed DSD expenditure and investment that is effected through social development intervention, and social development outcomes demonstrated by the Eastern Cape citizenry.

The computation of an MPI for EC citizens has been undertaken in the preceding sub-section (4.2) and the research question now turns upon the extent to which these outcomes, tracked over the study temporal period, demonstrate a significant relationship with the SD praxis of the EC DSD, delineated by the programmatic SD investment made by the DSD over the study temporal period.

4.3.2 Social development expenditure of the Eastern Cape Department of Social Development

The data illustrated in Table 4-4 records the reported expenditure by programme by the EC DSD between financial years ending March 2007 and March 2018 in real terms. Between the years 2007/2008 and 2013/2014, the EC DSD enacted its mandate through three principal programmes: Administration, containing

“the strategic management and support services to all levels of the department,” Social Welfare Services (SWS), the programme tasked with “delivery of integrated developmental welfare services that address the impact of social risks to vulnerable individuals, groups, families and communities in partnership with NPOs and CBOs,” and Development and Research (DR), the programme that “facilitates social development processes, and access to resources that would empower marginalised communities and poor households in the Eastern Cape to . . . improve social well-being in line with community development principles and practices” (EC DSD Annual Report 2009).

Table 4 - 4 Eastern Cape Department of Social Development spending for the period 2008 - 2018 (ZAR '000)

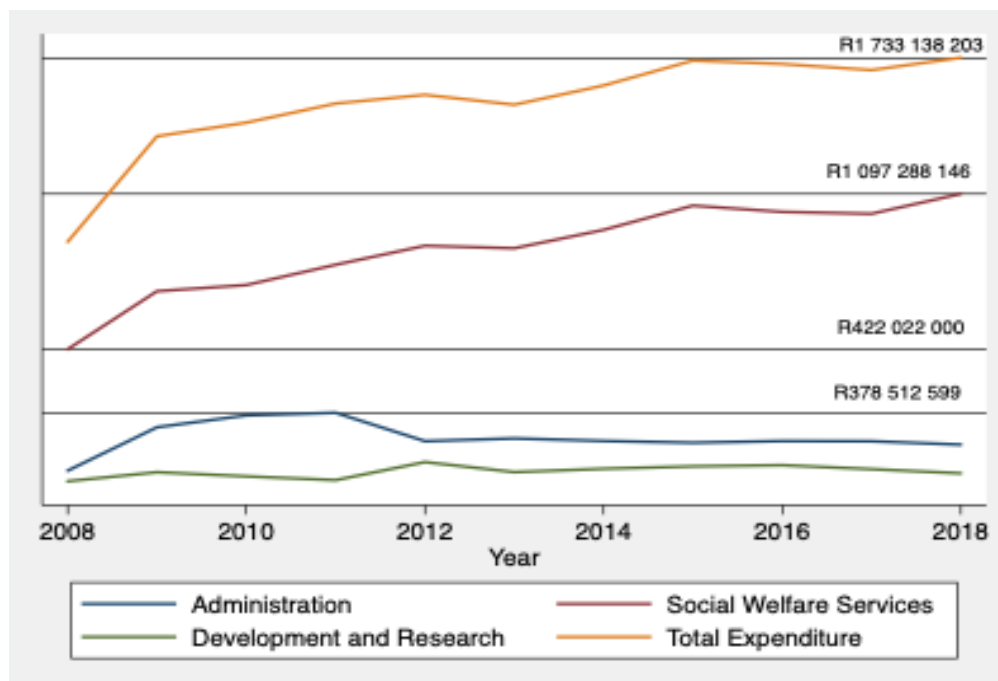
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Administration	208081	368549	412398	422022	317219	327224	317975	311384	317785	316848	304240
Social Welfare Services	656426	870837	893670	968570	1038697	1029331	1097288	378512	417623	463127	464930
Development and Research	169169	202502	187239	173261	240003	202917	215183	224211	228421	213842	198447
Children and families								525912	472151	443140	503964
Restorative Services								282426	274036	250583	261554
Total	1053058	1442983	1493309	1563853	1595920	1559473	1630446	1722448	1710019	1687541	1733138

Source: EC DSD Annual Reports 2008 -2018

Throughout the study period, the majority of the department's budget was allocated towards its SWS programme. This represents, on average, up to two-thirds of the department's annual expenditure. Over this interim period, the DR programme represented a rough average of 15% of the department's annual expenditure, and Administration 25%. The EC DSD reported a significant increase of 50% in its total annual expenditure between February 2008 and 2009, before maintaining a more steady annual increase (around 2% on average, after adjusting for inflation) until 2014. There is no explanation for this increase in the corresponding annual report, however there is an indication in the national treasury's February 2009 Budget

Review that provincial departments “received significant increases especially for education, welfare services, and health” for the year March 2009 to 2010.” From March 2014, the EC DSD (and all other provincial departments of social development) re-categorised activities under two additional programmes: Children and Families (CF), and Restorative Services (RS). The introduction of these two categories did not correspond with an increase in the total allocated to the department. As illustrated in the figure below, the re-categorisation of the departments programming saw a deviation of funds away from SWS to accommodate new activity, rather than supplement it. It is interesting to note that SWS was the only programme from which departmental funds were diverted - the Administration and DR programmes, in fact, continued to increase by regular amounts. Collapsing the temporary programmes CF and RS into SWS, figure 4-2 demonstrates the almost complete linearity in the real increases per programme.

Figure 4-2 Eastern Cape DSD real programme expenditure over the period 2008 - 2018



Source: Author

4.3.3 Regressing Eastern Cape DSD expenditure on social development outcomes

There were two regression forms (see chapter 3, equations 1 and 2), the results of which are recorded below. The first regression is univariate, with the independent variable specified as the log of EC DSD total spending. The second form is multivariate, with the independent variables specified as the log of the EC DSD categorised expenditure.. The logarithmic form of these units was taken to measure the real, marginal changes in intra-programme expenditure, measured as percentage change per annum. The MPI computed from the sample set is therefore at the population level, decomposable by geographic (provincial) region.

$$E(MPI|x) = G(\beta_1 + \beta_2 \log(SWS) + \beta_3 \log(DR) + \beta_4 \log(Admin))$$

$$E(MPI|x) = G(\beta_1 + \beta_2 \log(EXP))$$

The $G(\cdot)$ link function was specified as the standard normal (probit) distribution such that $G(x) = \Phi(x)$ where $\Phi(\cdot)$ is the standard normal cumulative distribution function $\sim N(0, \sigma^2)$. Estimating the parameters β was done using a quasi-maximum likelihood estimator (QMLE).

Tables 4-5 and 4-6 respectively illustrate the output for the two models estimated.

Table 4 - 5 Regression output for Multivariate Fractional Probit Model

$$E(MPI|x) = G(\beta_1 + \beta_2 \log(SWS) + \beta_3 \log(DR) + \beta_4 \log(Admin))$$

Model 1		N = 5		
	Variables	log(SWS)	log(DR)	log(Admin) _constant
	β	-1.082*** (0.182)	0.937* (0.505)	0.327** (0.133) -3.398 (8.057)
	AME	-0.156*** (0.033)	0.135* (0.078)	0.047** (0.021)
	Wald: <i>Chi2</i>		R2	
	= 598.54**		= 0.010	

Table 4 - 6 Regression output for Univariate Fractional Probit Model

$$E(MPI|x) = G(\beta_1 + \beta_2 \log(EXP))$$

Model 2		N = 5	
		log(EXP)	_constant

β	-0.626***	12.083***
	(0.146)	(3.116)
AME	-0.09**	
	(0.017)	
Wald: <i>Chi2</i>	R2	
	= 18.40***	=0.008

Source: Author

Note: ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively. Standard errors are presented in parenthesis)

Increased EC DSD spending ought to contribute to the decline in the regional MPI, therefore, the coefficient estimates are expected to be negative. In Model 1, the positive coefficient estimates for log(DR) (AME = 0.135) and log(Admin) (0.047) respectively are not indicative of some inverse effect. Rather, the changed spending between the two categories has had little measurable alignment with the changes in regional MPI. This result is not surprising. Referring back to Figure 4-2, the DR and Admin programmes represented a miniscule share of the total spending, and were thus expected to demonstrate a weaker alignment with the MPI. In Model 2, collapsing the total EC DSD spend into one variable (log(EXP)) yields more predictable results. The negative coefficient estimate suggests that increased changes in real spending by the EC DSD is empirically associated with the decline in the regional MPI. The significant Chi2 figure supports the robustness of the estimate. The low R2 figure is expected. There are numerous factors that would be expected to influence the indicators that make up the MPI and there are no controls for exogenous effects incorporated into this model iteration. Interpreting the coefficients is unwieldy, and it is easier to communicate the results of the regression by calculating the elasticity of the independent variable by measuring its Average Marginal Effects (AME). The AME coefficient in Model 2 can be interpreted as follows: for every 1% increase in real EC DSD expenditure per annum, there is an expected 9% decline in the province adjusted multidimensional poverty headcount. This positive association is speculative, but does provide some evidence of effectual activity undertaken by the EC DSD. The SWS programme is responsible for the most imperative developmental welfare services for vulnerable groups, and so the measured impact of the department, chiefly acted through this programme, is cause for cautious optimism. The flat, limited growth in real DSD spending, especially on programmes that have a measured impact on SD, is concerning. There are other confounding

factors which would contribute to the improvement in wellbeing experienced in the Eastern Cape beyond the scope of the DSD, such as macroeconomic conditions, which influence indicators such as food security and unemployment directly. These are conceded as further limitations to this research, elaborated upon in the following section.

4.4 Acknowledged research limitations

The study focus falls on the SD practices of the DSD, as executed by the EC DSD. There are, however, developmental practices that are undertaken by other organs of state, including Public Works, Basic Education and Higher Education and Training. Additionally, the grants paid at national level to EC recipients must reasonably be assumed to have had an impact on income poverty, and hence must be considered as playing a role in the provincial social development. It is emphasised, however, that the aim of this research has been to isolate as far as possible, the effectuality of SD spending by the organ of state named for, and mandated for this purpose. It is also acknowledged that the EC evidence established by this research is not necessarily generalisable to all the South African provinces.

Another acknowledged limitation is one which arises in the collection of secondary data. The IV data, scoured from EC DSD annual reports and from National Treasury budget votes, do not specify how activities under particular programmes were coordinated. Detail is limited to descriptive explanations of anticipated programmatic outcomes. In addition, the DV data is derived from the NIDS survey waves 1-5. This data must be acknowledged as containing limitations relating to generalisability at the provincial level, as this position has been elaborated by Leibbrandt, Woolard and de Villiers (2009) and Branson and Wittenberg (2019).

4.5 Summary and implications

This chapter reported the analyses undertaken by this research to fulfil the two research objectives. Two sections formed this chapter. Attending the first research objective, the first section detailed the computation of a novel MPI for contextualised evaluation of social development outcomes in the EC. The research found that between 2008 and 2018, multidimensional poverty in the Eastern Cape declined. The largest contributors to the improved measured livelihood were indicators of standard of living (such as housing materials and quality), economic (with a lower unemployment rate) and health (with fewer households being recorded under

the food poverty line). Attending the next research objective, the section that followed presented the results of the econometric modelling undertaken to assess the longitudinal relationship between SD investment in the EC, and SD outcomes in the EC. The study found that the minute portion of funds allocated by the EC DSD towards its DR programme has minimal alignment or measurable effect on MPI reduction. The second model tested by the study found a significant, negative relationship between EC DSD changes in total spending, and MPI reduction, suggesting a positive, but limited impact by EC DSD activity.

The indicators which contributed the most to the decline in multidimensional poverty over the study period demonstrate some overlap with DSD functioning, suggesting a positive assessment of the prevailing SD praxis, particularly as executed in the Eastern Cape. However, the fluctuation in other indicators suggests a structural sensitivity across those dimensions. Both of these insights gleaned from the study are recommended for areas of further research, elaborated upon in the following chapter.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The DSD is constitutionally and legislatively mandated to steer the South African government's pursuit of eradicating poverty and inequality. However, more than two decades since democratic transition, and nearly

a decade on from the unveiling of the NDP, national levels of poverty and inequality remain intolerably high. The purpose of this research was to interrogate whether the DSD's social development praxis - ideology, process, and practice combined – is effectual. Two research objectives underpinned this research intention: the measurement of SD outcomes, as explained and conveyed in the study conceptual framework, and the modelling of DSD SD expenditure on SD outcomes. A research design was conceived and it was upon this basis that the research enquiry is brought to this culmination.

The purpose of this chapter is to summarise in high level overview, the conceptual framework, the research objectives, the research design, the data analysis and results. This indulges the deliberation of what may be regarded as rational deductions, in the form of a reasoned interpretation of outcomes. The chapter is brought to a close with a) an acknowledgement of the research limitations and the generalisability of this research, and b) recommendations for further research based on the findings

5.2 A summary of the research

5.2.1 Conceptual framework

The research was couched within the conceptualisation of an OSM, elaborated in the introductory chapter. This conceptual framework is modelled after the OSM model put forward by Katz and Khan (1978). In this conceptualisation, state directive serves as *input* to the process led by provincial governments, specifically the EC DSD as organ of state, in this research iteration. The DSD coordinates the state-driven ambitions for SD in the form of national SD programmes. National funds are appropriated and channelled by the state through provincial departments, manifesting as a suite of programmes considered to be appropriate and optimal within budgetary constraints, to manifest SD. These activities, represented by SD programmes for which provincial budgets are systematically organised, represents the *SD process*. Seen together, state ideological ambition and provincial activity, are understood for this research as *SD praxis*.

The targets of this praxis are the desired *SD outcomes* and are constitutionally upheld as human rights. These targets are understandably broad, and emphasise dignity and choice, privileges historically denied for most citizens. The overarching research question framed as a problem statement, remains: does the SD praxis executed as state-intention and provincial-practice, represent an effective means of materially altering the welfare of citizens? As a research aim, the intention of this research has been to assess whether measurable social development outcomes demonstrate remarkable alignment and relationship with the DSD's social

development praxis, or a more inconspicuous relationship. If the latter, it would belie the relevance of maintaining the current social development praxis path.

5.2.1 Research objectives

To interrogate the relationship between measurable SD targeted outcomes, and recorded SD programmatic expenditure, two research objectives have pointed the way forward. The first research objective sought to identify and devise a metric of wellbeing and livelihood, which could serve as a contextually relevant and empirically suitable measure of multidimensional poverty in the Eastern Cape.

The second research objective has sought to ascertain the qualities of the longitudinal relationship between committed EC DSD expenditure channelled as SD intervention, and SD outcomes over the same period. It is the result of fulfilling this second research objective in particular, which magnifies and answers the research question: is the state's SD praxis effectual?

5.2.2 Summary of the research design and methods

The enquiry was designed as a longitudinal interrogation of the *process* independent variable's effect on the *output* dependent variable for the period 2008 to 2018. The first objective was met by conceiving and assembling a novel MPI, adhering to the principles of what has become internationally-embraced form using the Alkire-Foster (2011) method. This generated a metric of wellbeing and livelihood that is contextualised to research site conditions specifically, and South African conditions and circumstance generally. The second objective was met by utilising a fractional probit GLM method, as described by Papke and Woolridge (1996) and recommended by Alkire et al (2015) when modelling an AF-derived outcome variable.

5.3 Research outcomes and discussion

The research estimated that multidimensional poverty in the Eastern Cape decreased by roughly 55% between 2008 and 2018. It is observed that the MPI decreased between 2008 and 2010, increased sharply between 2010 and 2012, and decreased substantially thereafter. Both the headcount of multidimensional poverty, and average intensity of poverty experienced decreased overall, contributing to a substantial decline. Drivers of multidimensional poverty which were found to have the largest improvements by indicator over the reference

period were: food insecurity, household unemployment, access to cooking fuel, lighting fuel, electricity, and piped water. Though multidimensional poverty declined over the study period, there are some insights from the study which should dull any sense of optimism. Indicators that decreased by substantial amounts still remain concerningly high. The sharp fluctuations in multidimensional poverty over time are another cause for concern. The drivers of deprivation attributable for the fluctuation are unemployment and food security, and the magnitude of their changes, as well as sensitivity to change over time is speculated to indicate precarity and vulnerability in these dimensions of wellbeing.

The research modelled the changes in EC DSD categorised expenditure in real terms between 2008 and 2018 against MPI in the Eastern Cape. The first finding from this model is that increases in funding allocated to the Administration and Development and Research programmes of the EC DSD demonstrate no alignment with changes in the provincial MPI. Changes in the Social Welfare Services programme spending does indicate an alignment with changes in the provincial MPI, which were further explored in the second model iteration. The SWS programme is responsible for the most imperative developmental welfare services for vulnerable groups, and so the measured impact of the department, chiefly acted through this programme, is cause for cautious optimism. The results from the regression models suggests that there is a measurable impact of state-led SD on provincial multidimensional poverty, although a limited one. The first model iteration confirms the minimal measurable impact by programme, caused by the discrepancy in funding allocated towards them, with the SWS programme receiving the largest portion of the total departmental budget. The second iteration modelled the relationship between the EC DSD spending entirely and regional multidimensional poverty, and found that marginal changes in real spending by the EC DSD effect marginal changes in multidimensional poverty in the Eastern Cape. The second model iteration estimates that larger, real increases in the total EC DSD budget have a positive effect on multidimensional poverty, though the estimates suggest only a minute influence. The flat, limited growth in real DSD spending, especially on the SWS programme with a measured impact on SD, is concerning.

The measures of multidimensional poverty employed by this study by means of strict cut-offs are host to a number of challenges and limitations elaborated upon in Chapter 4 (section 4.3) of this dissertation and in Leibbrandt, Woolard and de Villiers (2009) and Branson and Wittenberg (2019). To best contextualise these findings, the section of the discussion that follows is in the form of a narrative review of supplemental evidence, pertaining to the dimensions of interest - unemployment, health, education, and standard of living - to capture the full scope of the progress of SD in the Eastern Cape.

5.3.1 Unemployment

This research used a broad, informal definition to measure unemployment at the household level, and the findings which suggest that this has improved slightly during the study period must be tempered with supplemental explanation. South Africa's aggregate unemployment rate, by strict, economic definitions, has fluctuated in line with the findings of this study. However, the overarching trend is that it has steadily increased over the last decade. The national unemployment rate stood at 21.5% post-global financial crisis in 2008, accelerated beyond 25% in the years that followed, and stabilised briefly at 23% (StatsSA, 2018). Since 2016, the unemployment rate has climbed sharply, peaking above 30% in 2020 (StatsSA, 2020: Trading Economics, 2021). The corresponding unemployment rate for the Eastern Cape province has been the highest in the country, fluctuating between 30% and 46% over this period (Maliti, 2019: StatsSA 2020). The province's rurality means that the implications of the unemployment crisis are more severe than in others. Dodd and Nyabvudzi (2014), for example, investigated the effects of unemployment and long-term underemployment in the Eastern Cape and found that the higher the unemployment level and the lower the living wage, the more aggravated is food insecurity. This is particularly so in rural parts of the province, but through behavioural forms that cannot be measured by oversimplified criteria, such as income. Dawson (1992) and Bangane (1999) further detail how structural and long-term unemployment have devastating effects on psychosocial well being. Joblessness is proven to be associated with extreme stress and psychological distress, and as Makinana (2013) and Mzizi (2017) find, this has especially debilitating effects on historically disadvantaged parts of South Africa, like the majority of the Eastern Cape province.

5.3.2 Education

Bhorat and Oosthuizen (2006) and Ncanywa (2014) found that educational resources and their respective quality had significant effects on educational outcomes of high school learners in South Africa. Deeper analysis of those findings by Ncanywa (2014) reveals that financial investment and teaching resources were severely inequitably distributed between rural and urban areas in the Eastern Cape. A further analysis by Ncanywa (2015) exposed that disadvantaged areas in the Eastern Cape, especially in the historical Transkei, were found to suffer from insufficient facilities, oversized classes, and inadequate financial support. A study by Tachie and Chireshe (2017) investigated the perceptions and outcomes of these conditions on secondary school students in a rural district in the EC province, and found that most learners attributed the districts high failure rate on the inadequacy of their learning environment and poor teaching resources. Even for students who achieve tertiary school placement, the consequences of their broader environment have tragically long-term effects. For example, a tracer study used to monitor students who graduated from public universities in the Eastern Cape conducted by Rogan and Reynolds (2016) found that graduate unemployment was significantly higher than average for students from under-resourced and historically disadvantaged secondary schools.

5.3.3 Health

In spite of improvements in measures of child, infant, and peri-neo-natal mortality in the Eastern Cape - tentatively supported by the research findings of the the national Demographic and Health Survey (2019), conducted in 2016, the Eastern Cape was found to have among the highest incidence of undesired pregnancy, as well as unmet need for contraception in the country. Austin-Evelyn et al (2017) conducted surveys with community healthcare workers in the Eastern Cape, focusing on the perceptions of those healthcare workers on the implementation of the national government's primary-care, community program (the rPHC) since 2010. The findings juxtapose extremely promising potential with debilitating execution. Minimal oversight, resource limitations, and inadequate training were cited as the critical weaknesses to such an intervention - and such findings are not in isolation. Tsawe and Susuman (2014) found that resource shortages, financial constraints, and lack of institutional oversight hindered maternal-health care services in rural areas in the Eastern Cape. Morris-Paxton et al. (2020) found that after improved rollout of mobile public-NGO clinics and primary care services in the Eastern Cape, there was an expansion of access based on the number of patients attended to in new clinics. They also found that despite the presence of those clinics many were still far from, and inaccessible, to rural communities due to insufficient traffic infrastructure in remote areas. The most blatant example of inadequacy in local healthcare is evidenced by Ngobeni et al. (2020) who found that on a technical, financial level, the Eastern Cape had the least efficient provincial public health care system in the country.

5.3.4 Standard of living

The findings from this study which suggest that water access in the Eastern Cape has improved must also be tempered. There is supplemental evidence which supports the improved access to piped water, owing to public infrastructure investment (Fana, 2018; Nkanjeni, 2020). However, due to long-term structural deficits in rural and low-income areas, the consequences of a severe drought which has gripped the province since 2015 have been most harshly felt in those areas (Damba-Hendrik, 2018; Mahlalela et al., 2020; Mbulali, 2021). Government intervention intended to address this disaster have also been found to fall woefully short with primary account, anecdotal evidence from rural residents suggesting structural failures to reach remote areas in the province at all (Majavu, 2019; Botai et al., 2020). Another indicator of standard of living to undergo significant change in the past decade is electricity access. Electricity access has been broadened through the publicly funded integrated national electrification program (INEP), which has estimated an increased coverage of 80 percent since 1994 (Engineering News, 2018). However, Ningi et al. (2020), Uhunamure et al. (2017), and Shackleton et al. (2007), share findings that the regular disruptions that have crippled the national electricity supply over the last decade have exacerbated unaddressed, long-term structural

deficiencies, particularly in low-income areas. This has meant that there is an underestimated barrier to electricity access and a continued dependence on alternative fuel sources, even after households have received electrification.

5.4 Conclusion

Historical structural poverty and inequality in South Africa has had clear and lasting effects. Untenable rates of poverty and inequality persist despite widespread exhaustive policy efforts to rectify these. It may prove a stretch to conclude that prevailing policy has failed, but it is reasonably understood to have fallen short of delivering the outcomes regularly promised by the state. This research, like others, has computed a context-sensitive MPI for a South African geography. The research has applied this MPI in a unique manner, however, at the *feedback* loop of open systems theory which has been conspicuously absent in the execution of SD praxis for a quarter of a century. While evidence of improvement in social wellbeing and multidimensional deprivation have been evidenced, the relationship between *process* and *outputs* remains tenuous. Further, for each evidence of investment in SD outcome, the additional evidence from alternative studies emphasises the continued socio economic precarity of citizens in the Eastern Cape. It is recommended that the enquiry be repeated as a standard for the remaining provinces, at which point the principal limitation of the current study – being the generalisability of EC findings to the national plane – could be considered overturned.

It is recommended, in summation, that this research be understood as follows: there is an undeniable imperative for social development, and the South African government has undeniably attempted to fulfill it. In the two decades post-democracy, there has been an evidenced adoption of and targeting of SD outcomes, throughout the state policy framework. There has also been an overall decline in multidimensional poverty, which this research has further evidenced between 2008 and 2018, specifically within the Eastern Cape province. There is, therefore, cause for encouragement in the prevailing national social development praxis. However, the redress of long-term deprivations has been inadequate and the continued inequality of access to vital social goods, such as quality education, employment stability, and appropriate healthcare remains. This, secondarily evidenced within this research report from primary resources, points to the obvious insufficiency in the scope of the mechanism of SD interventions, and their slow pace of progress to change. While that insufficiency remains unattended, it is concluded by this author that SD praxis cannot achieve its intended outcomes, and the full extent of the SD imperative remains direly unaffected.

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