
THE INTERPRETATION OF THE GREEN ECONOMY CONCEPT WITHIN TWO MAJOR BANKS IN SOUTH AFRICA

EXPLORING THE ROLE OF ECONOMICS IN SUSTAINABILITY TRANSITIONS

Ruan Naude

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Student number: 330919

Ethics Protocol Number: 2018ECE043M

University of the Witwatersrand

Faculty of Humanities: School of Education

Supervisor: Dr Presha Ramsarup

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RUAN NAUDE

330919

A research report submitted to the Wits School of Education,
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ABSTRACT

“The stakes are too high for formulaic interpretations. We must go deeper.”
(Moore, 2017, p. 626)

Globally an unprecedented challenge, in terms of complexity and extent, is facing us all – irrespective of whether some continue to deny its very existence (McCright & Dunlap, 2011). This challenge is the ever-increasing levels of unsustainable resource use leading to ecological degradation and destruction, biodiversity loss and climate change (Hamilton et al., 2015). A concept that has been used to describe the epoch (not the era) in which we find ourselves is that of the Anthropocene (Crutzen, 2006). It has been argued that this epochal moment requires a systemic response in terms of our thinking and practice in all domains of human activity and interaction (Berkhout, 2014) – including but not limited to those of education, work and the interaction between the two.

This study, which utilised a case study approach, examined how two major banks in South Africa were interpreting the green economy. In order to analyse the interpretation of the green economy within the two banks, a typology developed by Peter Ferguson which classifies green economy discourses on a continuum from weak green economy discourses to strong green economy discourses, was utilised (2015). The study also examined the interplay between higher education, and specifically the discipline of banking and economics, as banking still employs large numbers of commerce graduates. It illustrated that there were dynamics operational in both domains, banking and economics, that were potentially inhibiting a substantive socio-environmental economic transformation. Furthermore, it showed that the interaction between the two domains is complex; it is problematic to assume a clear and simple link can be established between the two.

Keywords:

Ecological crisis
Green Economy
Banking
Higher education
Economics

DECLARATION

I declare that this research report is my own unaided work. It is being submitted for the degree of Master of Education at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other University.

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RUAN NAUDE

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CHAPTER 1: INTRODUCTION

1.1 BACKGROUND AND CONTEXT

This chapter provides the background and context to the study (including the motivating factors that inform the overarching rationale behind the research) and outline the problems the study seeks to examine and contribute to addressing. Furthermore, it develops an argument that seeks to illustrate the importance and significance of the study and which also foregrounds the potential and limitations of the research.

This study is motivated by overwhelming amounts of scientific studies that prove, beyond reasonable doubt, we are facing an unprecedented ecological crisis that is simultaneously and intimately linked with the prevalence of widespread and deep-rooted social injustices (Kollmuss & Agyeman, 2002). Below is an overview in terms of the current state of affairs which gives credence to calls for systemic transformation of thinking and practice in the domains of education and work.

The impact that humans have had (greatly accelerated during the 20th century) and are having on the earth system is happening at a scale and speed that means we have become a powerful and destructive geological force (Ehlers & Krafft, 2006). A climate hotter by 4 degrees Celsius will result in conditions on earth that have not existed for 15 million years and which predates by millions of years the appearance of *Homo Sapiens* a mere 200 000 years ago (Hamilton et al., 2015). Human and non-human life forms, and the ecosystems which sustain them, are being destroyed at an unprecedented level (Lewis & Maslin, 2015).

Education (at all levels and in all disciplines) that substantively and systemically addresses these issues, and which allows the space for imagining and constructing alternative futures, is clearly needed (Arslan, 2012). The likelihood of an inclusion of a core environmental sustainability and social justice focus in many disciplines, not least economics, is uncertain for multiple reasons. This will, however, be discussed in greater detail in later sections of this study.

What is the current state of affairs in terms of the environment and social justice? A brief global overview below is followed by an examination of the extent of the South African ecological crisis and substantial social justice shortfalls. Some of these (often intersecting) flash points are discussed below in order to provide a broad contextual justification for the study.

Carbon dioxide levels are currently higher than they have been in 800 000 years (Lewis & Maslin, 2015). This a conservative estimate with some calculations claiming that carbon dioxide levels are possibly higher than they have been in several million years (Stocker, 2014). The released carbon has resulted in an increase in water acidity probably not seen in the last 300 million years (Lewis & Maslin, 2015). Species extinction is taken place at a rate anywhere between 100 to 1000 times faster than the background rate (Barnosky et al., 2011).

The human cost of these developments is also immense. Globally it is estimated that air pollution causes approximately 3.3 million premature deaths annually (Lelieveld et al., 2015). Environmental pollution as a whole is responsible for approximately 8.9 million deaths globally on an annual basis (Suk et al., 2016).

In terms of social justice there are also serious shortcomings and fault lines globally. Social justice has multiple and contested meanings and interpretations but can be defined as:

“... a vision of society in which the distribution of resources is equitable and all members are physically and psychologically safe and secure.” (Adams et al., 2007, p. 1)

Globally, approximately a third of all deaths per annum can be attributed to absolute poverty (Schramm, 2016). Absolute poverty, and poverty more broadly defined, causes immense physical and psychological harm to individuals, communities and entire nations (Schramm, 2016). Major advances have been made in terms of food production, yet it is estimated that worldwide just under 800 million people remain food insecure (Jones, 2017). An examination and analysis of data from 149 countries has also indicated that there is a correlation between poorer mental health and food insecurity (Jones, 2017). In terms of a further level of examination of the impact of

our unsustainable economies and ways of life on our well-being, approximately 29.2 % of people globally suffer from a common mental disorder such as depression or anxiety in their lifetimes (Steel et al., 2014).

The state of affairs in South Africa is no less grim. While categories of data on South Africa are not always available, a recent study found that between 1997 and 2013 approximately 290 000 deaths in South Africa could be linked to extreme temperatures (at either end of the spectrum) with the young (< 6 years) and old (> 64 years) being especially vulnerable and at risk (Scovronick et al., 2018). In Sub-Saharan Africa, exposure to ambient air pollution causes approximately 176 000 deaths (although the figure is probably higher due to a lack of frequently updated data or in certain instances a complete absence of data) (Amegah & Agyei-Mensah, 2017). Large amounts of ground water in Sub-Saharan Africa are polluted with urban water and sanitation services in general not being ready for potential climate change induced disruptions (Lapworth et al., 2017). A South African study that examined water quality in Mpumalanga and North West province found there were health and environmental risks associated with wastewater and drinking water sampled and tested in the two provinces (Wanda et al., 2016). There is approximately 269 000 tons of plastic in the ocean with South African coast lines being especially severely affected (Xanthos & Walker, 2017). Plastic pollution negatively affects economic sectors such as aquaculture, tourism, fishing and energy production (Xanthos & Walker, 2017).

A brief overview of social justice considerations in South Africa is presented below. This does not , however, imply that a clear distinction between environmental and social justice considerations as it has been well-established in the environmental education field in South Africa, and elsewhere, that environmental, economic, political and other domains are deeply interconnected and intersect in often complex ways (O'Donoghue, 1993; Janse van Rensburg, 1994; Lotz-Sisitka, 2009). From a social justice perspective, South Africa faces serious challenges and has a veritable plethora of intersecting, and at what seem to be at times intractable, impediments to a more just and equitable economic dispensation.

If the upper bound poverty line of ZAR 992 per person per month is used (2015 prices) then half the population lives in poverty (World Bank, 2018). If the transient poor and non-poor but vulnerable are included then about 76 % of the South African

population either lives in poverty or are imminently at risk of falling into poverty (World Bank, 2018). South Africa is also the most unequal country in the world according to certain estimates (World Bank, 2018). Only about 4 % of the population can be considered elite with living standards well above the average (World Bank, 2018). Research has also indicated that there is a potentially positive relationship between homicide rates in certain areas of South Africa and inequality (Harris & Vermaak, 2015).

All the above sets the context of this particular study painting a stark and convincing picture which makes a compelling case for the need globally, and in particular in the South African context, to explore, experiment and implement the educational and workplace reforms that will contribute to the transition to a green economy that is simultaneously environmentally sustainable and socially just (United Nations Environment Programme, 2011). Although there is clearly a pressing need for action it by no means follows that we are exempt from our duty to engage in rigorous and careful critical enquiry. Indeed, this study is premised on a logic contrary to the one that demands immediate and unreflective action. As the scale, intensity, pace and complexity of our dilemmas increase so “we must go deeper” (Moore, 2017, p. 626).

1.2 PROBLEM STATEMENT

The specific problem which this study seeks to examine is: What forces, endogenous and exogenous, are operational in banking and economics which could inhibit or enable a transition to a green economy orientation? Although there is a clear need to transition to a green economy, very little is known about how it is being interpreted in specific sectors and/or industries. This particular study focuses on banking, as the redirection of financial flows to sustainable economic activities is potentially critical for the transition to a green economy.

The study examines three interconnected and interrelated domains: the interpretation of the green economy within two major banks in South Africa, education with a specific focus on the discipline of economics at universities; and the domain of interaction between the two.

The first problem that this study seeks to examine is that the green economy discourse often operates at a high level of generality and abstraction. Green skills research conducted in the chemical (with a particular focus on the surface coatings

industry), mining and agricultural sectors of South Africa (amongst others) has indicated that the green economy is a contested concept. There are widely divergent interpretations of what a ‘green’ economy (or green jobs and green skills) actually means and entails (Rosenberg, Ramsarup & Lotz-Sisitka, 2020). It has been argued that:

“The concept *green* is notoriously fuzzy; it is a socially constructed concept, intangible and often unobservable.” (Rosenberg et al., 2020, p. 176)

Alternately, many critiques of the green economy discourse, although meritorious in many respects and warranting careful consideration, also operate at a worrying level of generality (Pennington, 2001; Schwartzman, 2012; Nørgård & Xue, 2016). This particular study focuses on banking in South Africa as banking could potentially play a central role in the transition to a green economy by shifting investment and funding of commercial operations away from socio-economically unsustainable economic activity (Campiglio, 2016). Banking was therefore selected as it is a potentially critical sector in terms of green economy transitions. Hence, there is a need to examine how the green economy is being interpreted in the specific context of banking, despite the difficulty inherent in such an undertaking, as it is problematic to assume that there is a universal, economy-wide, understanding of the green economy. The development of more in-depth sector-specific understandings of how the green economy is being interpreted can contribute to a better understanding of possible green economy transitions.

The second problem this study seeks to examine is the role that, and in particular higher education with a specific focus on economics (as an important entry route into the banking sector), could potentially play in transitioning banking towards a more robust and substantive green economy orientation. This study does not problematically assume a simple and direct causal relationship between education and work, especially with regard to sustainability concerns. It seeks to examine and develop an understanding of the complexity and ambiguity inherent in sustainability transitions in a particular context. Or put differently:

“Sustainability concerns are most often described as ‘wicked problems’ or nexus issues characterized by high levels of complexity, ambiguity,

controversy and uncertainty both with respect to what is going on and with respect to what needs to be done.” (Lotz-Sisitka et al., 2015, p. 73)

This study seeks to examine the complexity involved in including a stronger focus on socio-environmental sustainability in economics with regard to economics itself and in terms of the interaction between economics and the banking sector.

Due to the urgency to act when it comes to socio-environmental sustainability, it could lead to a fixation on calls to transform education at all levels, including higher education (Huckle & Sterling, 1996; Shephard, 2008; Stephens et al., 2008), without duly engaging with the complexity and contestation involved in such transitions. This study will, to an extent, engage with the complexity and contestation of transitioning economics at higher education institutions.

Out of these two problems located in two domains – that of education and that of work – **arises a third problem** which is located in the space where the two domains intersect (or fails to intersect or only partially intersects). This space is that of the causal and explanatory efficacy attributed by some to education (Becker, 1962, 1993; Schultz, 1961). Or put differently, to what extent can education explain transformation in the economy and society? A discourse that tends to attribute a near mono-causal power to education, commonly referred to as Human Capital Theory, is powerful and one that permeates, and sometimes dominates, many fields of praxis and requires robust critical engagement (Bowles & Gintis, 1975; Gilead, 2009).

An example of why an uncritical approach to the core assumptions of human capital theory is problematic is the recent World Bank (2018) report on poverty in South Africa. Despite admitting the severity and structural nature of poverty, the primary solution posited for all the country’s complex and deep rooted problems is that of more and better education (World Bank, 2018, p. 53). Neglecting the structural nature of poverty is problematic as it forecloses on the exploration of the structures and forces that contribute to large sections of society living in poverty.

The problem is then that of an over-determination of the causal and explanatory efficacy of education. This generates a need for critical engagement to ensure that our framings of problems and solutions to these problems, socio-environmental and otherwise, are not educationally biased, or over determined, even as attempts are

made to transform higher education to include a stronger focus on socio-environmental justice and sustainability in higher education.

1.3 BRIEF RATIONALE

The rationale of this study is that there is a need to examine how the green economy is being interpreted in banking. Furthermore, it examines how the green economy is being interpreted in economics at a selection of higher education institutions as many banking employees come from commerce higher education backgrounds where economics is a compulsory subject. This gives rise to a critical examination of the interaction between higher education, with a specific focus on economics, and banking with regard to green economy interpretations.

1.4 RESEARCH QUESTIONS

- 1) How is the green economy being interpreted within two major banks in South Africa?
- 2) What are the constraints and transformative potentialities arising from the inclusion of sustainability thinking and practice in economics at higher education institutions?

1.5 IMPORTANCE AND SIGNIFICANCE OF THE RESEARCH

The primary importance and significance of this study is to engage in critical and constructive enquiry by examining what can be termed competing meta-narratives (C. Smith, 2003). The two dominant meta-narratives in this instance are the green economy and human capital theory.

As could be seen from the brief overview of the state of the environment and society globally and in South Africa, provided at the start of this chapter, we face serious and complex challenges. Systemic transformation is required to address these challenges and it would seem that responses on various fronts are required, including but not limited to education. The extent of the transformative capacity of education is however a matter of intense debate and contestation (Bowles & Gintis, 1975; Bills, 2003; Gilead, 2009); this study actively engages with this debate. Furthermore, the case made for a radical re-thinking of powerful and dominant economic models and framings that place GDP growth as the ultimate goal and measure of progress, to

think as it were like 21st century economists, is indeed compelling and urgently needed (Raworth, 2017).

In essence, this study aims to contribute to the critical debate and discussion in South Africa (and elsewhere) regarding the complexity of the challenges we face in transitioning to a green economy that is socio-environmentally just and sustainable. The goal is to illuminate the complexity as the study navigates through what is at times, a highly contested terrain.

A second more empirically grounded and motivated contribution this study seeks to make is that of determining how the green economy is being interpreted within two major banks in South Africa.

A third contribution the study aims to make is the development of an understanding of how the green economy is being interpreted in economics and what this indicates in terms of the endogenous and exogenous forces which could inhibit or enable the inclusion of green economy thinking in economics.

1.6 CONCLUSION

This chapter has provided a background and context to the study by illustrating the scope and severity of the multiple and intersecting environmental and socio-economic crises being faced globally and in South Africa. It has also provided a brief introduction to the green economy and the role that banking could play in the transition to this green economy. During the process, dominant discourses regarding the causal efficacy of education, and the contestation surrounding these discourses, were also briefly introduced. The problems, which are complex and interrelated, that the study seeks to address were then outlined. The chapter concluded with a consideration of the contribution the study seeks to make.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents and engages with the literature relevant to this study in the form of a critical literature review. There are many advantages to a critical literature review but two are especially relevant to this particular study: that of a critique of rhetoric and a critique of authority (Mingers, 2000). The use of rhetoric and the presence of authority are evident in all three domains being examined: banking, economics and the space where the two interact.

Beyond the objectives of identifying the most relevant literature applicable to the topic, contextualisation and establishing the position of this research within a wider body of established theory and knowledge (Saunders & Rojon, 2011), the literature review also serves as a space to develop analytic insights. This is achieved by critically evaluating dominant green economy discourses. From the literature review a conceptual framework is developed to analyse data.

A critical evaluation of the interaction between the domains of work and education is informed by an engagement with Human Capital Theory (HCT) and a selection of critiques which are most relevant to this study.

In terms of sequencing, the chapter is structured as follows: first, a general introduction and conclusion to the chapter is provided. The main body of the chapter is then presented consisting of six sections. Connections between sections are surfaced and developed to allow for the construction of a coherent whole.

The first section, **Section 2.2**, provides a contextual overview of banking and higher education in South Africa and includes an overview of literature that argues for an expanded role in terms of green economy transitions for both banking (or more broadly defined finance) and higher education. The primary focus of this section is to ascertain the dominant logics operational in two central domains of enquiry and analysis: the banking sector and higher education institutions.

Section 2.3 examines the central concept of the study, that of the green economy, drawing on international and South African literature. **Section 2.4** considers literature that is critical of dominant green economy discourses. The critique of green economy discourses draws on and is linked to sections 1 and 2 of the literature

review. A framework to determine the extent of green economy transformation and progress is also presented.

Section 2.5 examines conceptualisations of Human Capital Theory (HCT) as articulated by both its earliest architects and advocates as well as more contemporary adherents. Critiques of HCT are then be presented before being scrutinised. The case for the relevance of HCT to this study is also made and it is shown how it is central in explaining the actual or purported causal interaction between the two domains of enquiry (i.e.two banks and economics at higher education institutions).

Section 2.6 examines a range of theories and concepts which inform the examination of economics with regard to the inclusion of socio-environmental justice and sustainability considerations. These are Max-Neef's concept of transdisciplinarity (2005) and closely related to this, Gordon's discussion of "disciplinary decadence" (2014) as well as Lotz-Sisitka, Wals, Kronlid and McGarry's (2015) interpretation and examination of Gordon's notion of "disciplinary decadence".

Section 2.7 presents the conceptual frameworks developed through engagement with the literature in Sections 2.2 to 2.6. Finally, the findings of the chapter are summarised into a conclusion (Section 2.8).

2.2 FINANCE, BANKING AND HIGHER EDUCATION

This section starts with a **brief overview of the banking sector in South Africa**. There are many banks, both locally and foreign owned, operating in South Africa. There has also been a rise in new banks that are mostly or even purely digitally based such as Discovery Bank and Tyme Bank (PricewaterhouseCoopers [PwC], 2019). The reality is, however, that banking in South Africa is dominated by four large banks: Standard Bank, Nedbank, First Rand and ABSA (PwC, 2019). Even though a bank such as Capitec could also be considered a major role player, it is much smaller than any of the four major banks.

To place this into perspective, as of 31 December 2017, Capitec had total assets of a little under ZAR 90 billion (SARB, 2018). In comparison, the four major banks each had assets of approximately ZAR 1 trillion with Standard Bank's assets(as the largest

bank in South Africa) being approximately ZAR 1.2 trillion (SARB, 2018). Investec is the only exception with assets a little over ZAR 400 billion at the end of 2017 (SARB, 2018). At the end of 2018 the four major banks had posted combined headline earnings of ZAR 82.75 billion (PwC, 2019, p. 9). Despite the South African economy often facing substantive economic, political and social difficulties, major banks in South Africa frequently record, and did so again in the financial year ending 31 December 2018, double digit returns on equity levels which are well above their global peers (PwC, 2019).

The finance, real estate and business services sector of the economy saw a gross domestic product (GDP) growth rate of 4.1 % in quarter 2 of 2019 (StatsSA, 2019). This is almost double that of manufacturing which expanded at 2.1 % (StatsSA, 2019). Banking falls under this sector and although no data is available specifically on banking's contribution to GDP, banking is deeply embedded and involved in the financial sector, as well as all other sectors, of the economy. It would therefore be almost impossible to extract data that is solely banking focused. Finance, real estate and business services are also by far the biggest sector of the economy and contribute a little over 20 % to the GDP (StatsSA, 2019).

In summary, what this illustrates is the power of especially the four major banks in South Africa. Prima facie, the financial flows that the major banks direct have the potential to be a major catalytic and driving force for socio-environmental transformation (Mozib Lalon, 2015; Owen et al., 2018). One area where banks could make a major contribution to socio-environmental justice and sustainability is in the financing of renewable energy. National Treasury has recently acknowledged that the cost per kilowatt hour of electricity generated by renewable methods such as wind and solar is ZAR 0.92 which is comparable to current average Eskom tariffs (National Treasury, 2019, p. 20). Furthermore, the cost of coal generated electricity is set to increase (National Treasury, 2019). The need to transition to renewable sources of energy is especially pronounced in South Africa where almost 90% of electricity is generated by coal-fired power plants (Bekun et al., 2019). As a result, South Africa accounts for a staggering 42% of Africa's carbon dioxide emissions (Bekun et al., 2019).

Critical to the sector are its employees and their educational backgrounds. Banking employees come from a wide range of post school educational backgrounds (BankSETA, 2019, p. 44). Relevant to the focus of this study, is higher education. In

terms of occupational categories, there are approximately 70 000 clerical workers, 30 000 professionals and 40 000 managers in banking (BankSETA, 2019, p. 24). In terms of the educational profile of the various occupational categories, most clerical workers will complete secondary school and then obtain on-the-job training (BankSETA, 2019). The vast majority of professionals and managers have some form of post school education with a significant percentage having university degrees (BankSETA, 2019).

As there is a combined total of approximately 70 000 managers and professionals in the banking sector, and as most of them will have university degrees with approximately 50% coming from a commerce background (Oluwajodu et al., 2015), there is merit in examining the link between economics and banking. Furthermore, professionals (who often later become managers) tend to have higher levels of influence and power within institutions (Scott, 2008). The power and influence of professionals and managers can be utilised to contribute to the transitioning of organisations in a given direction (Visser & Crane, 2010) – in this instance to higher levels of socio-environmental justice and sustainability. The thinking and practice of professionals and managers are shaped by various forces but the argument here is that their formal higher education at least partially shapes how they view economic activity and their own and other's practice within the organisation.

In terms of higher education, commerce related degrees continue to be the preferred education when it comes to banking selection criteria for employment (Oluwajodu et al., 2015). There has been a recent shift towards a need and /or preference for Science, Technology, Engineering and Mathematics (STEM) graduates (Oluwajodu et al., 2015) as banks in South Africa have increased their adoption and use of new and emergent technologies (BankSETA, 2019, p. 44). However, the Banking Sector Education and Training Authority (SETA) still funded mainly commerce related degrees in 2018 (BankSETA, 2019, p. 45).

Economics as a subject is most often taught as part of a business and commerce related degree at undergraduate or postgraduate level. Many commerce students do not necessarily specialise in economics but are required to take economics to fulfil the formal stipulated requirements of their degrees. An example of this would be the popular postgraduate degree of Master's of Business Administration (MBA) offered at the University of the Witwatersrand's Business School. 'Economics for Business'

is, for instance, a core course whereas 'Managing for Sustainability' is an elective (MBA, Wits Business School, n.d.).

What information is available on business and commerce related fields of study in higher education? In 2017, 278 930 students were enrolled for business and commerce related diplomas and degrees at higher education institutions in South Africa (Council on Higher Education [CHE], 2019, p. 25). These figures include postgraduate degrees. Business and commerce is the second largest group with the largest enrolment group by field of study being science, engineering and technology with a headcount of 310 115 in 2017 (CHE, 2019, p. 25). In terms of number of graduates per year, 56 364 students with degrees in business and commerce related fields of study graduated in 2016 from public higher education institutions (DHET, 2018, p. 20). For those who graduate, the vast majority (over 90%) will find employment as the graduate unemployment rate in South Africa is relatively low being below 10% (Bhorat et al., 2016).

A recent study that focused on graduate unemployment, and which had a banking sector focus, found that banks in South Africa strongly preferred to employ graduates from institutions such as the University of Pretoria, the University of the Witwatersrand, the University of Cape Town and the University of Johannesburg (Oluwajodu et al., 2015). The main reason recruitment managers at the four major banks, which are also the main employers in the banking sector, cited for choosing these universities was that they perceived the quality of education received to be of a higher standard at these institutions (Oluwajodu et al., 2015). It was found that graduates from a wide range of higher education academic backgrounds were employed by banks but that half of graduates from all academic disciplines, 50% in the sample of about 600, came from a business and commerce academic background (Oluwajodu et al., 2015). The second largest group of graduates employed by banks were science graduates who constituted 40% of the sample (Oluwajodu et al., 2015).

All the above points to the potential influence of economics as a discipline, not only in banking but in many other sectors of the economy (Raworth, 2017). The influence is not necessarily direct in that those who study economics become economists but in that most (if not all) commerce students at higher education institutions are exposed to economics during the course of their degrees.

Furthermore, orthodox and neo-classical framings of the primary purpose of economic activity and thought, economic growth above and often at the expense of all else, permeates business, academic and popular discourse and practice (Raworth, 2017). Considered in conjunction with the jarring reality of environmental unsustainability and social injustices, it would then seem that the case for universities as sites of education and research where all disciplines are ‘greened’ is indeed compelling (Murga-Menoyo, 2014). It is argued that for the transformation to a green economy to take place:

“... changes, some of them very deep ... are required in the structures of employment and in the professional profile of the workers.” (Murga-Menoyo, 2014, p. 2975)

Multiple strategies need to be put in place and one of the most critical strategic change drivers will be the transformation of education – including but not limited to higher education (Murga-Menoyo, 2014). It is furthermore argued that general sustainability and green economy competencies, as well as technical competencies and new qualifications, will be required in the transition to a green economy (Murga-Menoyo, 2014).

2.3 THE GREEN ECONOMY

This section examines various articulations, interpretations and definitions of the green economy concept. There are multiple definitions of the green economy but for the purpose of this study, the two most widely used (the United Nations and World Bank definitions) are examined and utilised. A South African definition and articulation of the green economy is also examined. It is argued that although the concept is contested, it is useful as it provides a potentially useful framework to guide a transition to more socio-environmentally just and sustainable economy (Mohamed, 2019a, p. 11). Section 2.4 following this section provides an overview of critiques of the green economy from varied and multiple perspectives.

What then is a green economy? A brief introduction to the concept was provided in Chapter One but considering its centrality, it is worth quoting a widely used definition, developed and promoted by the United Nations Environment Programme

(UNEP), at length:

“UNEP defines a green economy as one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive. In a green economy, growth in income and employment should be driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services.” (UNEP, 2011, p. 2)

It is argued that we should work towards both environmental sustainability and social justice and that the one cannot be focused on at the expense of the other (UNEP, 2011). Both are long term objectives but in the interim, measures need to be introduced to green the existing economy and shift it towards higher levels of environmental sustainability and an improved state of social justice. Put differently, the green economy is the vision and mechanism that will enable the realisation of a state of sustainability. In this instance, sustainability is broadly defined. This articulation of the green economy is what can be termed ‘growth agnostic’ as it does not explicitly argue for or against continued economic growth (Mohamed, 2018). It will be shown later why this is potentially problematic and a source of substantial contestation.

The central role to be played by both public and private investment is also emphasised (United Nations Environment Programme, 2011; Swilling et al., 2016). This was one of the original motivations for examining the interpretation of the green economy in banking. Before proceeding to other definitions of the green economy, it is worth noting, as it has a bearing on critiques of the green economy discussed in Section 2.4, that UNEP (2011) clearly states that it does not support one political orientation or perspective over another. It claims to be ideologically and politically neutral (Swilling et al., 2016).

Another widely used articulation of the green economy is offered by the World Bank. It makes the case for:

“... a new kind of development path – one that supports growth while focusing more on sustainability and ensuring that the environment is a key enabler for green, more-inclusive growth.” (World Bank, 2012, p. 2)

It furthermore states that the vision of the World Bank is one in which:

“... good policies enable the private sector to use natural resources sustainably as part of good business, creating jobs and contributing to long-term growth.” (World Bank, 2012, p. 2)

As with UNEP, the central role of new forms and different directions of finance and investment are emphasised (World Bank, 2012). Another dominant theme in the World Bank’s articulation of its vision for a green economy is the emphasis on risk management through the development of climate change adaptation capacity (World Bank, 2012). This component of the World Bank’s articulation of the green economy can be seen as a type of vision which could support the “maladaptive resilience of unsustainable systems” (Lotz-Sisitka et al., 2015, p. 73) as it does not constitute a systemic transformation of current socio-environmental, economic and political systems.

The World Bank also emphasises that our metric for successful and flourishing economies, and how we measure success and progress, should shift from a focus on GDP to one that prioritises overall wealth (World Bank, 2012). The concept of overall wealth is not however clarified or explained in greater detail. The official document on the green economy published by the World Bank uses the term “overall wealth” only once and in passing (World Bank, 2012). Another feature of the World Bank’s approach is an emphasis on the role to be played by new and innovative technologies in the transition to a green economy (World Bank, 2012). This has been characterised as an incremental, market- and technology-led discourse, or “bolt on” (Lotz-Sisitka et al., 2015) approach to sustainability transitions (Mohamed, 2019b, p. 15).

There has however been a recent shift in the World Bank discourse whereby certain components of a just transition orientation have been added to sustainability

transitions in its conceptualisation of the green economy (McCauley & Heffron, 2018). “Just transitions” is itself a contested concept but can most succinctly be defined as “a fair and equitable process of moving towards a post-carbon society” (McCauley & Heffron, 2018, p. 2).

It could be argued that the UNEP and World Bank definitions can be seen as variations on a theme and are in many respects broadly similar (Loiseau et al., 2016). A closer reading does however reveal potentially significant differences such as the overall framing of the green economy presented by the two organisations and their respective discourses. Notably, UNEP places more of an emphasis on the opportunity presented for widespread transformation offered by the green economy whereas the World Bank repeatedly emphasises risk management and containment of the global ecological crisis.

The second notable difference is how the issue of social justice is approached. Although the World Bank states that the green economy is an economy for all, it does not explicitly mention matters of social justice and how these will be aligned with and incorporated into the green economy. In line with its framing of the containment and management of the risks associated with continued environmental degradation and destruction, the World Bank highlights that continuation on the current economic trajectories will inhibit growth and development as the result of significant economic costs (World Bank, 2012).

A third and last difference that is discussed here, and which is most relevant to the critiques of the green economy in the next section, is that of the differing orientations of the two global institutions to economic growth. UNEP represents a form of growth agnosticism as it does not explicitly state that continued growth will be part of its vision for a green economy. Neither does it state that reduced or zero growth will need to take place in order to move into the “safe and just space” that does not overshoot planetary boundaries yet still manages to satisfactorily meet basic human needs (Raworth, 2017). The World Bank however clearly states that there is a continued and pressing need for economic growth as long as it is in the form of a ‘new’ green growth. This approach has been termed the “green growth discourse” and will be examined in greater depth in the next section (Death, 2014, p. 13).

Before proceeding to an examination of critiques of the green economy, South Africa's orientation to and articulation of green economy aspirations and transformation will be examined. What does the green economy mean in a South African context? There is a veritable plethora of competing articulations and visions for a green economy in South Africa (Death, 2014). Instead of investigating the minutia of multiple government green economy strategies, policies and articulations, as such an exercise would be mainly a technical endeavour of limited value to this particular study, two dominant articulations of the green economy as expressed in two strategic government policy documents, are discussed here: the Green Economy Accord and Chapter 5 of the National Development Plan.

In the Green Economy Accord an emphasis is placed on the economic growth opportunities and job creation potential presented by a transition to a green economy (Department of Economic Development, 2011). It is stated that with the right policies and cooperation between stakeholders, a green economy will contribute to the overarching strategic objective which is the creation of five million jobs by 2020 (Department of Economic Development, 2011). At the time of its publication, the goal was the creation of 300 000 green economy related jobs by 2020 (Department of Economic Development, 2011). As of 2019 it is unknown how many of these jobs were created and as far as is known, no efforts are underway to measure the extent of progress in terms of green economy job creation. The Green Economy Accord also places emphasis on the central role of new and emergent technologies and states that the green economy involves largely new economic activities (Department of Economic Development, 2011, p. 8).

Chapter 5 of the National Development Plan is dedicated to the green economy or as it expresses it, a transition to a "low carbon" and "resilient" economy (National Planning Commission, 2012). The primary focus is the reduction of carbon emissions and the development of an economy that is able to adapt to the disruptions and shocks of climate change (National Planning Commission, 2012). As opposed to the intimately interwoven objectives of transitioning to an economy that is both environmentally sustainable and socially just, a position is adopted in the vision that argues for balancing the need for a low-carbon economy less reliant on fossil fuel with the need for employment creation and reduction of inequality (National

Planning Commission, 2012). A transition to an inclusive and just society is also mentioned (National Planning Commission, 2012).

Considering all the above, it would seem it is reasonable to categorise the dominant green economy discourse in South Africa (Mohamed, 2018) as a “green growth discourse” (Death, 2014, p. 13). The next section examines critiques of the green economy discourse and shows why this is potentially deeply problematic.

2.4 CRITIQUES OF THE GREEN ECONOMY

Before proceeding to an examination of critiques of the green economy, some conceptual clarification is required. Firstly, these critiques are not in any way sceptical of or opposed to the genuine need for a transition to an economy that is both environmentally sustainable and socially justice. One way to develop greater clarity it is to utilise a “typology of green economy discourses” (Ferguson, 2015, p. 28) and to distinguish between means and ends. The end in this instance is a more or completely just and sustainable socio-environmental economic system. This is necessary as contention and controversy regarding the green economy is mainly centred on disputes related to the means and ends of the green economy with particularly fierce debate regarding means. There is, however, relative consensus, excluding those who are blindly committed to current destructive and unsustainable economic trajectories, regarding the ultimate end-goal (very) broadly defined. The devil is, however, in the details.

In terms of a “typology of green economy discourses” (Ferguson, 2015, p. 27), three forms of green economy discourse can be identified: “weak green economy”, “transformational green economy” and “ strong green economy” (Ferguson, 2015, p. 28). Each discourse adopts a different position regarding the following matters: economic trajectory and the orientation proposed to growth, indicators (i.e. the role and/or significance of GDP), the level of environmental and social security and whether it views developed world levels of consumption as sustainable or unsustainable (Ferguson, 2015, p. 28).

The first discourse, termed a **“weak green economy”** (Ferguson, 2015, p. 27) or **“green growth” discourse** (Death, 2014, p. 13) most closely aligns with the green economy discourse adopted by the World Bank and South African government. This discourse advocates for an unaltered role for GDP as the primary indicator of progress; continued economic growth that is green; developed world levels of consumption that are ‘sustainable’ (a good example of this would be fair trade coffee served in a biodegradable cup); and security that is limited to basic state security (Ferguson, 2015, p. 26). Critics of this discourse partially agree with the ends (a low-carbon economy for instance) and usually strongly disagree with the means.

For the purpose of this study, a **“transformational green economy”** (Ferguson, 2015, p. 28) discourse informed engagement with research participants and the formulation of interview protocols. This discourse is most closely aligned with the UNEP conceptualisation of the green economy. The primary reason for utilising this discourse was its dual and interlinked focus on environmental sustainability and social justice which was considered especially relevant to the South African context which faces substantive environmental sustainability and social justice challenges. For the purpose of the study, it was also decided that this framing of the green economy is more politically neutral and would therefore be less contentious – especially in light of the decision to interview senior banking employees who represent powerful economic interests. Another reason behind utilising this discourse was that it was not as far removed from the ‘weak green economy’ discourse and would therefore be less likely to result in cognitive dissonance (Festinger, 1962), alienation or outright resistance. The use of the discourse was also aspirational and provided participants an opportunity to critically reflect on their praxis.

What does this **second “transformational green economy discourse”** (Ferguson, 2015, p. 28) entail? It argues for growth agnosticism and/or selective growth (for instance growth in economic sectors that have a reduced or very little environmental and social impact), an altered GDP such as for instance the inclusion of a Gross National Happiness Index (GNHI) (Santos, 2013), green consumerism that is accompanied and/or enabled by institutional changes in certain instances, and

circumscribed economic and environmental security beyond the state providing basic security in terms of climate resilience (Ferguson, 2015, p. 28). In the case of this discourse the **means** (to varying degrees) as opposed to the **ends** are most often contested. What is meant by the contestation of means in this instance would be the contestation regarding the strategies and mechanisms required to transition to a green economy.

The third discourse, that of a “**strong green economy**” (Ferguson, 2015, p. 28), is where most of the critique of the other two discourses originate from and some of those critiques will be examined here. If the three discourses are part of a continuum (Ferguson, 2015, p. 32) then within the “strong green economy” discourses there is also a continuum of radicalism. The critiques within the “strong green economy” are also often overtly political or at the very least adopt a political economy theoretical orientation which argues that politics and economy cannot, nor should they, be neatly separated (Miller, 2005). The most radical positions within the “strong green economy” discourse argue for, or at least do not completely disregard, the need for the revolutionary overthrow of capitalism in order to avert irreversible and widespread environmental catastrophe and unprecedented suffering and wretchedness (N. Smith, 2010).

The ends of this discourse are difficult to contest as a substantially or even radically environmentally sustainable and socially just economy is indeed necessary and desirable. It is however in terms of means where this discourse can and should be critically engaged with. This is especially as it runs the risk of generating resistance and conflict as South Africa is primarily operating within the space of a “weak green economy discourse” (Ferguson, 2015, p. 28).

Green economy discourses, and especially transformative and weak versions, are critiqued on multiple fronts. The first discourse that will be critically examined is that of the South African “green growth discourse” (Death, 2014, p. 13) which can also be categorised as a “weak green economy” discourse (Ferguson, 2015, p. 28). Death (2014) develops and presents two critiques of the “green growth discourse”.

The first critique is that there is a lack of embedding of the green economy discourse across various levels of government (Death, 2014, p. 14). Added to this, and probably

a more substantive critique, widespread and well-documented, is the consistent lack of implementation of policies and strategies by the South African government (Oelofse et al., 2006; Kraak, 2011;). As it is difficult to imagine the transition to a green economy (whether weak, transformative or strong) taking place without substantive state intervention and/or co-ordination, this critique is probably the most devastating from a practical and operational perspective.

The second critique is focused on green growth that is premised on the commodification of ecosystem services and natural resources (Death, 2014). It is argued that this is deeply problematic as it seeks to commodify and by implication privatise and generate profits from common resources such as land, biodiversity, air and water (Goodman & Salleh, 2013; Death, 2014; Stevenson, 2014). In essence, this allows a capitalism which is already almost ubiquitous, to spread its influence and power into domains that are not at present fully explored and exploited. The consequences of this second critique, if adequately reflected on, are truly terrifying in terms of the potential damage that could be caused if taken to their logical conclusion. From a South African perspective, the first critique (the lack of state capacity and political will to implement the green economy) is, however, probably the most devastating, especially in light of recent events such as that of widespread state capture by nefarious forces (Swilling, 2017).

A common critique of green growth discourses is motivated by a view that holds that a zero-growth or negative economic growth approach is required to realise the vision of an economy which is both environmentally sustainable *and* socially just (Victor, 2008; Cato, 2012). The position that critics take issue with is commonly known as “ecological modernisation” which claims that economic growth can be decoupled from environmentally unsustainable economic practices (Næss & Price, 2016). These critics of ecological modernisation argue that infinite economic growth in a world with finite resources and a limited capacity to absorb the waste generated by economic activity, is simply impossible and will eventually lead, and is already leading, to economic, social and environmental catastrophe (Victor, 2008). This is the negative motivation informing their position. The positive motivation for their position draws on a wealth of research which shows that after a certain level of affluence and material well-being, there are diminishing returns in terms of overall

subjective well-being or happiness (Duncan, 1975; Myers & Diener, 1995; Cone & Gilovich, 2010; Aaker et al., 2011; Boyce et al., 2017).

One potential critique that can be levelled against this position that argues in favour of the need for de-growth is that it applies to the developed world which reaped the economic benefits of two centuries of extractive and exploitative natural resource use and often wide-scale ecological destruction (Assadourian, 2012). From this follows the conclusion that the developing world needs to be allowed some leeway to exploit natural resources in order to develop their economies.

Does this critique of de-growth hold when subjected to closer scrutiny? It would seem not. Firstly, from an ecological perspective the world today is not the world of 200 years ago. Multiple planetary boundaries have been reached or overshoot by some order of magnitude (Raworth, 2017). It is hard to imagine that humanity can continue on its current trajectory of endless economic growth and the attendant increase in production and consumption without facing substantive environmental sustainability and social justice tensions, disruptions and crises.

Secondly one cannot so blithely separate environmental sustainability and social justice considerations as the two are closely connected (O'Donoghue, 1993; Janse van Rensburg, 1994; Agyeman et al., 2002).

2.5 HUMAN CAPITAL THEORY AND ITS CRITIQUES

This section examines Human Capital Theory (hereafter HCT) and some of its critiques as it provides useful insights into the relationship/s, actual or purported, which exist between the world of work (banking) and higher education (economics). The primary reason for the inclusion of an in-depth discussion of HCT is that HCT tends potentially to place too much emphasis on the knowledge of the individual in seeking to identify the cause of increased economic productivity and output. It will be argued that the same over attribution of causal and explanatory efficacy could creep into arguments which argue for the role of higher education transformation in terms of sustainability transitions and that this should be guarded against.

The critiques examined here are those that are most applicable to this study and in no way attempt or claim to be a comprehensive overview. A critical review of HCT has been included in this study as it provides a theoretical framing for the examination of the relationship between education (economics) and work (banking).

HCT originated in the discipline of economics (Schultz, 1961; Becker, 1962;), has influenced other disciplines, and some of its principles and theoretical framings of social and economic problems and solutions are operational in very powerful and influential organisations such as the World Bank (World Bank, 2018).

In terms of critiques there is a body of well-established literature that critiques HCT from multiple theoretical and empirical perspectives. A critical awareness of HCT is especially relevant in the case of education that aims to transform thinking and behaviour from a socio-environmental justice and sustainability perspective. This is because a primary focus on education as a transformative force could lead to the marginalisation or exclusion of other mechanisms of systemic transformation (Allais, 2012) such as continuous radical political struggles for an environmentally sustainable and socially just economy and society or legislation that incentivises sustainable or disincentivises unsustainable behaviours, amongst many other courses of action.

The normative dimension of HCT requires especially close scrutiny – normative in the sense of the belief held by some that education has the power to transform society, economy, individual organisations and individuals. It does have this power but the extent of its transformative, or alternately re-enforcing capacity, is and should be debated. Not only at the broader level but also at the individual level, the value add of education is much more uncertain than some would argue (Schultz, 1961; Becker, 1962; World Bank, 2018).

An overview of the theoretical position of HCT follows. What are the core tenets/ theoretical principles of human capital theory? As the theory does not necessarily explicitly and in great detail elaborate on its theoretical structure, determining this can be difficult. An examination of the work of the economist who first explicitly developed, elaborated on and conducted empirical studies utilising the notion of human capital, Gary S. Becker, provides some insight.

Becker stated that he was:

“... concerned with activities that influence future real income through the embedding of resources in people. This is called investing in human capital.”
(Becker, 1962, p. 9)

The resources referred to can vary according to many categories and types such as health care, diet and the relevancy and accuracy of information on the economic system possessed by the individual, amongst others (Becker, 1962). A closer reading however reveals that the primary emphasis is placed on investment in knowledge acquired at various sites as the primary or at least a substantial source of economic advantage – whether this be on-the-job, primary and secondary or post school education and training (Becker, 1962, p. 10).

Although Becker (1962) utilised sophisticated formulas and advanced theoretical techniques, which are at times very difficult to follow, he quite clearly stated he was aiming to provide an alternative explanatory theoretical framework that offered a more accurate account of economic differences than those advanced by other economists. What do the other economists referred to argue in terms of differences in economic position? As this is one of the main points of contestation with HCT, it is worth quoting at length.

“For a while economists were relating these differences primarily to differences in the amount of physical capital since richer people had more physical capital than others. It has become increasingly evident, however, from studies of income growth that factors other than physical resources play a larger role than formerly believed, thus focusing attention on less tangible resources, like the knowledge possessed.” (Becker, 1962, p. 9)

Before proceeding further, it is worth examining the above more closely in order to attempt to do justice to Becker’s position. The first part, in terms of richer people having an economic advantage over poorer people due to them having more physical capital (i.e. wealth and income), and Becker’s implicit argument that this is not necessarily the case but substantially or even predominantly due to intangible assets such as knowledge, is highly debatable, contestable and in many instances,

simply false. Many studies have illustrated that physical capital, and all the benefits that accrue to the social groups, communities, families and individuals who possess this capital, is a powerful and often even the predominant source of socio-economic and other forms of advantage (Hansen, 2014; Clark & Cummins, 2015; Adermon et al., 2018).

To be fair to Becker, when he developed his theory of human capital in the early 1960s, the United States was experiencing relatively high levels of income growth coupled with a relative levelling in terms of income and wealth compared to other historical periods in the 20th century (Piketty & Saez, 2003). There may, therefore, be extenuating circumstances related to Becker's embedding within a particular context and historical period. Even if this was the case, numerous more recent empirical studies show that certain core concepts informing the theoretical position of HCT are questionable or outright false, which should at the very least raise serious questions in terms of adopting some of its core assumptions. Becker himself stated that: "... empirical usefulness is the only justification for any theory ..." (Becker, 1962, p. 49)

The second part of Becker's position is less contestable. It does indeed seem problematic to focus only on physical resources while neglecting or downplaying the role of intangible or less tangible resources such as education (Becker used the term 'knowledge' – he was not an educationalist and therefore used 'knowledge' very loosely). As one of the critics of HCT has argued, it would indeed be problematic to argue that education has no impact on performance in the workplace or other dimensions of social and economic life (Bills, 2003). There are multiple critiques of HCT but Bills offered a more nuanced and sophisticated critique (2003), as illustrated here, thus a more in-depth engagement with his arguments is justified.

There are, however, other factors at play that call into question the direct and linear causal relationship assumed by HCT between education, productivity and increased earnings or economic position (Bills, 2003). Two of these factors, which are distinct yet related, would be credentials and signalling (Bills, 2003). Educational credentials (degrees, diplomas etc.) are used by those who possess them to send signals regarding their productivity to potential employers in the labour market (Bills, 2003). In essence, credentials are used to enhance chances of employability as they are a way of advertising job-seekers' actual and perceived productivity. A

third factor to consider would be that of screening (Bills, 2003). This is the process whereby employers use the credentials of job-seekers to screen, narrow down, or even determine who they want to employ (Bills, 2003). This is due to the simple fact that when employing someone, credentials are an easy and relatively simple signal to read; although the veracity of the productive capacity and ability related information contained in the signal being sent by job-seekers to employers is questionable (Bills, 2003). As a result many countries, outside of the United States from which the critique originates, have opted for job specific tests in addition to or as a substitute for signals sent via credentials held by job-seekers as a primary screening mechanism (Bills, 2003, p. 459).

A recent extensive survey conducted in the United States revealed that education levels and the actual educational requirements associated with jobs were generally heavily misaligned (Handel, 2016). The greatest mismatch between level of education and the requirements of the job reported was for university degree holders (Handel, 2016, p. 186). A staggering 47% of university degree holders held jobs that required a high school education or less (Handel, 2016, p. 186). The median length of required experience for a job was 1.5 years and the median time required to learn a job was an astonishingly low 3.5 months (Handel, 2016, p. 187). All this clearly illustrates that the gap between credentials and the signals sent by them and actual underlying ability can be immense in certain instances.

As has been illustrated, HCT has potentially severe shortcomings. This overview of HCT and its critiques has shown how the causal efficacy and impact of education (whether in the economic, environmental or social spheres) and the relationship between education and work, should be approached carefully and critically as it is indeed a complex and contested terrain.

2.6 TRANSDISCIPLINARITY AND DISCIPLINARY BOUNDARIES

It was found that the theories and concepts utilised in the examination of the domain of banking would not be suitable in the discipline of economics. In order to understand how economics was interpreting socio-environmental considerations, the concepts of transdisciplinarity and disciplinary boundaries have been utilised.

The first was that of Max-Neef's concept of transdisciplinarity (2005).

Transdisciplinarity can best be defined in terms of four distinct yet interlinked and interacting domains or levels of intellectual activity and enquiry (Max-Neef, 2005, p. 9). When substantive interaction between all four domains takes place, it constitutes transdisciplinarity (Max-Neef, 2005). The first domain is that of what exists. The second that of what we are capable of doing, the third that of what we want to do and the fourth that of what we ought to do (Max-Neef, 2005, p. 9).

Examples of disciplines located within the first domain would be: mathematics, physics and economics (Max-Neef, 2005). In the second domain one finds disciplines such as architecture, engineering and commerce. The third domain contains disciplines such as law and politics which are concerned primarily with what we want to do. The fourth and final domain is that of philosophy and within philosophy the sub-domains (often contained within the other domains, to varying degrees of course) of values and ethics (Max-Neef, 2005). The fourth domain primarily concerns itself with what we must do. In the case of the drive to transition to a green economy (in the economy as a whole or within specific sectors, sub-sectors or industries), all four domains are operational but often with a strong focus on what we must do (the fourth domain) as it is primarily future-focused and transformative in its discourse and intent.

Transdisciplinarity can be sharply contrasted with disciplinarity or mono-discipline (Max-Neef, 2005, p. 6). This is the drive towards ever higher (or narrower) levels of specialisation, departmentalisation and intellectual activity undertaken in isolation from other disciplines (Max-Neef, 2005). This movement has been gathering momentum and developing since the Renaissance but has become especially pronounced in the latter half of the 20th century (Max-Neef, 2005, p. 6). In such an environment, prestige and funds are often allocated based on the level of specialisation of the academic/s or academic department/ institution (Max-Neef, 2005). Max-Neef's notion of transdisciplinarity was essential to the analysis of data in Chapter Four of this study.

Building on, and linking to the work of Max-Neef, it is helpful to draw on Lotz-Sisitka et al.'s (2015) discussion of the need for a transgression of disciplinary boundaries, and a movement towards a transdisciplinary approach, in the context of socio-environmental research. A transdisciplinary approach is needed as the complexities of socio-environmental systems means that research (or praxis) which is grounded (or

confined) within a single discipline is limited and limiting (Lotz-Sisitka et al., 2015).

The diametric opposite of transdisciplinarity, as articulated in Gordon's (2014) notion of "disciplinary decadence", was especially analytically generative when engaging with economics. "Disciplinary decadence", in its most extreme manifestation, entails a turning away from reality in all its complexity and ambiguity (Gordon, 2014). This turning away is then accompanied by a turning inwards towards the 'world' of the discipline which is regulated and determined by methodology and rules (Gordon, 2014) in a discipline. In essence what is being claimed is that the discipline becomes an end-in-itself as opposed to using the discipline and its repertoire of methodological and other tools as a means to an end (Gordon, 2014). The concepts of transdisciplinarity, disciplinarity and disciplinary decadence were not used to make general claims about the field of economics or the banking sector. They have only been used to make sense of the domains of enquiry in this particular study.

2.7 CONCEPTUAL FRAMEWORKS

All of the above contributed to the analysis of data; however, two conceptual frameworks enabled and assisted with the majority of data analysis.

For analysis of the data in banking, Ferguson's (2015) typology of green economy discourses was utilised with slight adaptations. The business as usual (or superficial green economy) was added to the original typology by the author (see the table that follows).

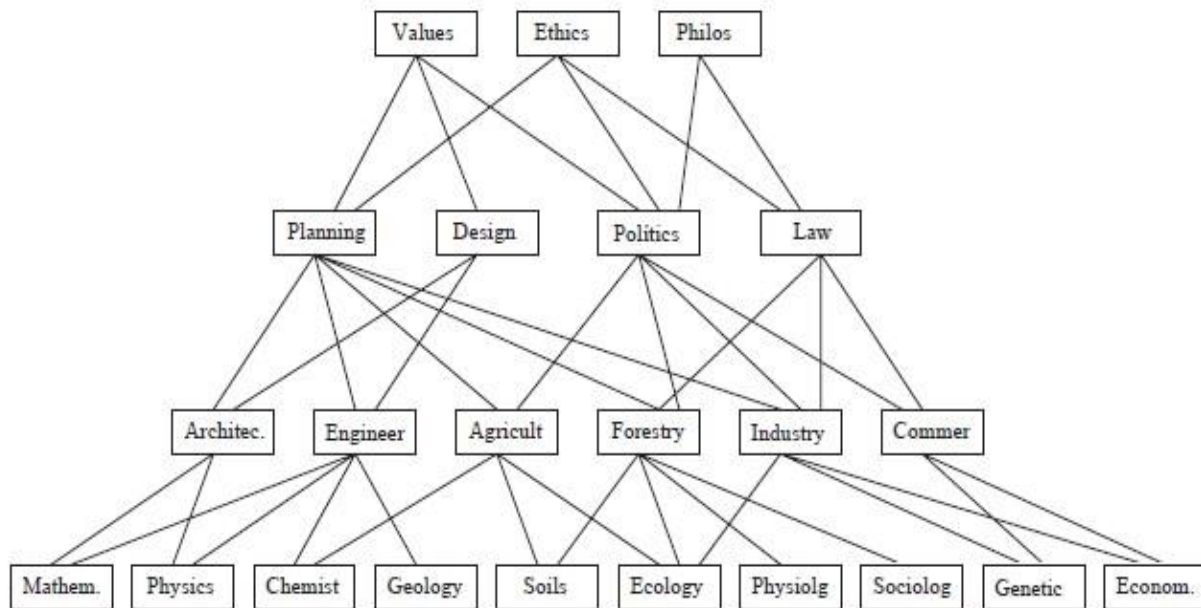
Table 2.1: Typology of Green Economy Discourses (Ferguson, 2015, p. 28, adapted by author)

	Business as Usual Economy (Superficial Green Economy)	Weak Green Economy	Transformational Green Economy	Strong Green Economy
Macroeconomic trajectory	Brown growth ¹ with minimal and/or superficial consideration of socio-environmental justice and sustainability	Green growth	Selective growth/ A-growth	Limits to growth/ post-growth
Economic, social and environmental indicators	Unmodified GDP	Unmodified GDP	Modified GDP	Encompassing measures of welfare
Western levels of consumption sustainable or unsustainable	Western levels of consumption sustainable/ selective green consumerism	Western levels of consumption sustainable/ green consumerism	Green consumerism/institutional changes needed	Western levels of consumption unsustainable/ more systemic institutional changes needed

Using Ferguson’s framework assisted greatly with determining the extent as well as the manner in which the two banks in question were interpreting the green economy. The analysis of data revealed that different professionals had different perspectives depending on their professional role within the bank. This is discussed in greater depth in Chapter Four.

Ferguson’s typology was however not suitable for analysing data related to the discipline of economics. As discussed in Section 5 various theories and concepts were utilised to understand the discipline of economics. Max-Neef’s (2005) concept of transdisciplinarity and its diametric opposite, that of mono-discipline, proved to be especially analytically generative and was used extensively. The figure below

¹ Brown growth is where there is continued economic growth without due consideration for environmental sustainability and social justice. In banking, an example of this would be where a bank continues to finance the construction of coal-fired power plants in the energy sector. This could increase their revenue growth and rates of profit but has adverse effects on communities and the environment.



Graph 3. Transdiscipline. Reading the graph from bottom to top, the lower level refers to *what exists*. The second level to *what we are capable of doing*. The third to *what we want to do*. And finally, the top level refers to *what we must do*, or rather, *how to do what we want to do*. In other words, we travel from an *empirical* level, towards a *purposive or pragmatic* level, continuing to a *normative* level, and finishing at a *value* level. Any multiple vertical relations including all four levels, defines a transdisciplinary action.

Figure 2.1: Transdisciplinarity (Max-Neef, 2005, p. 9)

A critical orientation to Human Capital Theory was utilised to explore the interaction between the two domains of banking and economics. A critical orientation to the core assumptions of HCT was needed as it allowed for the development of an analysis and exploration of exogenous forces, beyond education, which could inhibit or enable a transition to a green economy. By incorporating a critical approach to HCT in the study, insights were developed that would otherwise have been unlikely to surface.

2.8 CONCLUSION

This chapter has provided an overview and examination of literature relevant to the study. It has provided an overview of banking in South Africa and made the case for the link between banking and education with a particular focus on commerce degrees and economics. It then proceeded to examine the concept of the green economy as well as critiques of the green economy. Human Capital Theory was explored but ultimately its core assumptions did not offer adequately explain the interaction between the domains of work and education. A selection of theories that inform the critical review of economics were then discussed. Finally, two primary conceptual frameworks utilised to analyse data were presented.

CHAPTER 3: METHODOLOGY

3.1 INTRODUCTION

This chapter describes the research methodology utilised in this study. It examines the research approach, rationale and reasoning behind the selection of research participants, the process of data collection and analysis, and includes a reflection on ethical considerations and challenges that arose during the course of the study. Methodological issues, and how they were overcome or could have been approached differently, are also critically reflected on.

3.2 CHOOSING A RESEARCH APPROACH

In broad terms, a qualitative paradigm or approach was utilised. This approach has well documented strengths as well as weaknesses (Steckler et al., 1992). Both a quantitative as well as a mixed-methods approach were considered. It was ultimately decided that a qualitative paradigm would be best suited to studying this particular phenomenon (i.e. the conceptualisation and practice of the green economy in two major banks and the role that education could play in transforming how the green economy is conceptualised and practised). This section provides a justification of why a qualitative approach was selected.

What is a qualitative approach? It is difficult to summarise qualitative research in its entirety succinctly due to its diversity and the fact that many studies often do not explicitly or in detail discuss their methodologies (Diefenbach, 2009).

One of the goals of data collection in quantitative research is to get an insider's perspective of the group or individuals being studied (Steckler et al., 1992). **The first reason for selecting qualitative methods** was that it was paramount to obtain an insider's perspective. The reason for this was that environmental sustainability and social justice critiques often originate from sustainability activists, environmental scientists and radical political scholars and theorists (Ferguson, 2015). The critiques of the dominant economic thinking and practice are often located outside

the domains of enquiry being critiqued which in this case were economics offered at higher education institutions and green economy thinking and practice at a selection of major banks in South Africa. To examine only critiques without obtaining the perspectives of those who think and practice within the domains being examined, would be both epistemologically and ethically deeply problematic and even disingenuous. This study aimed, inter alia, to examine how ‘outsiders’ to the green economy discourses view environmental sustainability and social justice in their praxis; it was therefore essential to capture their perspectives.

A second feature of a qualitative method applicable to this study is that the overall aim of qualitative research is to decode or make sense of phenomena (Steckler et al., 1992). For this study, the purpose was not only to determine the extent of green economy transitions in banking and economics but to understand the underlying and structural forces and dynamics that inhibit or enable these transitions.

In terms of determining the extent of green economy transitions, it could be argued that a quantitative approach would have been better suited to determine the extent of this phenomena. Such an argument should be given due consideration as the production of factual, reliable and generalisable data (Steckler et al., 1992) in terms of the state of green economy transitions in banking, as well as other sectors, is important (Mundaca & Luth Richter, 2015), especially in the South African context. For instance, the Green Economy Accord (Department of Economic Development, 2011) promised 300 000 jobs were to have been created in the green economy by 2020. Some have argued that significant employment opportunities can be created by realising green economy opportunities in South Africa (Borel-Saladin & Turok, 2013) whereas others have argued that there are various systemic and structural constraints which make the realisation of the goal of 300 000 green jobs highly unlikely (Meyer, 2014). To date, no robust national quantitative research has been conducted to determine how many green economy jobs have been created since the Green Economy Accord was signed.

There is therefore a genuine need for robust quantitative research. A study of this nature is however not well-suited to such an undertaking as it seeks to understand *how* and *why* questions, which are generally ill-suited to quantitative enquiry (Steckler et al., 1992). Furthermore, due to the financial and logistical resources

required to undertake such a study or studies (Lefever et al., 2007), a well-resourced institution with multiple senior researchers from various disciplines would most probably be required to ensure the success of such an endeavour. Widespread institutional buy-in from an employer association, such as the Banking Association of South Africa (BASA), would also most probably be needed to increase the likelihood of access to and participation of identified participants. Even for this study, where a limited number of semi-structured interviews were conducted, gaining access to participants proved immensely difficult. In the instance of an extensive green economy study at economic sector or national level, a mixed methods approach, the ‘third paradigm’, could also be applicable and generative as it would have the potential to allow for more substantive analytic engagement with the data generated (Denscombe, 2008).

A third feature of qualitative methods relevant to this study was that qualitative methods often aim or attempt to increase dialogue (Steckler et al., 1992). As was illustrated in the literature chapter, the green economy is a contested concept and there are multiple, and often competing, understandings of what it does or should entail. Hence the need for dialogue to dissect, question and develop the researcher’s and participants’ understanding. Related to this is that qualitative methods often aim not to provide empirical answers but to illuminate and make sense of various perceptions, perspectives and world views (Goodwin & Goodwin, 1984). As will be illustrated in the data analysis in Chapter Four of this study, despite constraints, this is where the benefits of a qualitative method truly came to the fore.

A fourth and final reason for selecting a qualitative approach arises from a potential limitation associated with quantitative research methods: that quantitative research is often well-suited to studying a phenomena that has reached a certain stage of completion (Steckler et al., 1992). Utilising quantitative methods to study what in the case of the green economy is a state of transition, aspiration and often absence (i.e. a lack of green economy thinking and practice) is therefore potentially problematic.

3.3 CASE STUDY APPROACH

The study was designed using a case study approach. Two cases were constructed, one for banking and one for economics. The two cases are discussed further below.

The specific case study approach used was that of *a descriptive case study*. A descriptive case study aims, inter alia, to describe the characteristics of a phenomena in its context in as much detail as possible (Yin, 1981). **The first case study had as its focus the examination of how two major banks were interpreting the green economy.** This was achieved by examining annual sustainability reports and through interviews with key personnel at the banks in question. In terms of practice, a relatively clear and detailed picture could be developed as sustainability reports are official reports released on an annual basis that contain a relatively comprehensive overview of sustainability initiatives at banking organisations. The thinking of the organisation was much more difficult to ascertain but sustainability reports combined with interviews and the use of green economy related literature and theory assisted with surfacing and making explicit, to an extent, thinking and reasoning that was and is often implicit.

For economics at higher education institutions, a second case study was developed which consisted of two parts: one focused on the perspectives of economists'/economics lecturers and the other based on an examination of two economics textbooks. In terms of data sources, the case study utilised semi-structured interviews with economists, online searches on economics department's websites and an examination of commonly used economics textbooks for environmental sustainability and/or social justice content. Following the case studies, theoretical concepts and insights from the literature were revisited and 're-read' in conjunction with the case studies in order to critically engage with the perspectives developed and articulated.

In terms of exploring the causal relationships between the two domains, broadly defined as that of education and work, a purely descriptive case study approach was found to be wanting in certain respects. As a result, the examination of the causal interaction between the two domains (actual and potential), as well as the synthesis and analysis of findings, draws more strongly on both an *exploratory and a*

cumulative type of case study approach (Yin, 1981, 2013): exploratory in the sense that it aims to generate hypothesis for further investigation (Yin, 1981, 2013) and cumulative in that it aims to generate tentative insights regarding a cause and effect relationship between the two domains (Yin, 1981, 2013).

These two case study approaches were selected in addition to a purely descriptive case study approach for two reasons: one negative and the other positive. Negative in the sense that the use of these two approaches would reduce the risk of the case studies, and ironically this risk increases if the case studies are well presented, becoming nothing more than superficially appealing stories, and not much more (Diefenbach, 2009). The second was positively motivated in that these approaches would allow for the application of a certain amount of analytic rigour and the development of useful insights.

3.4 DATA COLLECTION METHODS

Two primary methods of data collection were utilised: interviews and the analysis of documents.

3.4.1 Interviews

Six in-depth semi-structured interviews with banking professionals and/or managers were conducted. Three in-depth semi-structured interviews with economists, who were also economics lecturers, were also conducted. Thus a total of nine in-depth semi-structured interviews were conducted.

The two tables that follow provide an overview of the interview sample for the study in the two domains – two major South African banks and three university economics departments. One interview was also conducted with a banking professional in a third major bank which was similar to the two major banks which are the primary focus of the study.

Table 3.1: Overview of interview sample for banking

Research Participant	Institution	Type of Data Collection and Place
1) Banking Professional	Bank 1	Semi-structured interview (in person). Johannesburg.
2) Banking Professional	Bank 1	Semi-structured interview (in person). Johannesburg.
3) Banking Professional	Bank 1	Semi-structured interview (in person). Johannesburg.
4) Banking Manager	Bank 2	Semi-structured interview (in person). Johannesburg.
5) Banking Professional	Bank 3	Semi-structured interview (telephonic). Participant based in Cape Town.
6) Banking Professional Banking Sector Organisation	Banking Sector Organisation	Semi-structured interview (in person). Pretoria.

Table 3.2: Overview of interview sample for economics

Research Participant	Institution	Type of Data Collection and Place
1) Economics Lecturer/Economist 1	Economics Department 1	Semi-structured interview (in person). Johannesburg.
2) Economics Lecturer/Economist 2	Economics Department 2	Semi-structured interview (in person). Pretoria.
3) Economist Lecturer/Economist 3	Economics Department 3	Semi-structured interview (in person). Stellenbosch.

3.4.2 Analysis of documents

The following types of documents were analysed: sustainability reports from the banks in question and economics textbooks. Ferguson's typology of green economy discourse was used to analyse sustainability reports from banks. In terms of economics, the concept of transdisciplinarity (Max-Neef, 2005), and its

opposite disciplinarity or disciplinary decadence (Gordon, 2014), was utilised to analyse documents.

3.5 SAMPLING: TARGET GROUPS AND POPULATION

This study had two target groups. The first target group included banking executives, managers and professionals working in corporate and investment banking. Due to issues of accessing the before-mentioned target group, banking managers and professionals working in banking, broadly defined, were also included. Although necessitated by practical considerations, this decision contributed to the development of the case studies in that differing perspectives came to the fore. There was a marked difference between three different groups of bank employees: those working with issues of sustainability from a purely compliance and risk management perspective, those who had no exposure to sustainability in their daily work and those who worked extensively with sustainability related matters.

The second target group identified were economics academics at higher education institutions. As this study seeks to examine to what extent green economics has been incorporated, or mainstreamed, in economics curricula across the board (i.e. undergraduate and postgraduate level), it was originally planned that economics academic staff who are not necessarily directly involved in teaching and researching environmental economics, energy economics and related fields would be interviewed. This was intended as a strategy to counter bias and increase, at least to an extent, the reliability and validity of the research (Pyett, 2003) as economists who were working in and on environmentally related areas of the economics discipline would be more likely to have a pro-environmental sustainability bias.

Banking staff and academics located in Johannesburg were interviewed with the exception of an academic located in Cape Town and a senior bank manager interviewed telephonically based in Cape Town. This was partially due to convenience considerations (Etikan, 2016) as the researcher was located in Johannesburg at the time of the research. In addition, the head offices of all the major banks in South Africa and the Sub-Saharan African region are located in Johannesburg, South Africa. Three major universities are also located in Gauteng.

All three universities originally selected, as well as the university located in Cape Town where an interview was conducted, were top performing South African universities known as “historically white institutions” (HWI) (Sennett et al., 2003) with reputable commerce faculties and economics departments. This was not due to bias on the part of the researcher but based on research that indicated that the major banks in South Africa generally preferred to employ graduates from historically white institutions (Oluwajodu et al., 2015).

Access to research participants, in banking as well as economics, proved to be extremely challenging. The interviews that were conducted all lasted approximately 60 minutes with certain participants engaging to such an extent with the topics that interviews lasted more than 60 minutes. Despite being cognisant of and sensitive to the limited time available to participants to conduct an interview, this level of interest and engagement was actively encouraged by the researcher as it was viewed as adding potential value not only to the study but also to research participants. It was made explicitly clear to research participants that they were free to terminate interviews at any stage if they felt uncomfortable or had other commitments.

Originally the primary type of sampling planned for the study was a combination of purposive and convenience sampling (Etikan, 2016) with a stronger focus on purposive sampling. Purposive sampling involves, in essence, the researcher identifying what needs to be known and approaching potential research participants utilising the criteria of knowledge and/or experience as identification and selection criteria (Etikan, 2016). To an extent, it was also envisaged that a form of snowball sampling would be utilised. It has been found that snowball or chain referral sampling is especially useful when the focus of research is of a sensitive nature (Biernacki & Waldorf, 1981). Although the research conducted in this instance was not extremely sensitive (Biernacki & Waldorf, 1981), it was still found that, when critically reflected upon, the subject matter of the study was more sensitive than the researcher had anticipated.

In the end, due to issues of access to participants, purposive and convenience sampling, methods were used (the latter to a lesser extent as specialists were still interviewed exclusively). Convenience sampling did, however, have the unintended benefit of allowing alternate perspectives to be surfaced and explored.

3.6 RESEARCH PARTICIPANTS

Three economists and six banking professionals were selected as research participants. The profiles of the research participants are significant to the study as they foreground the particular contexts and perspectives from which participants were speaking. All research participants spoke, almost exclusively with some minor deviations, in their capacity as practising banking professionals or economists working in academia as lecturers and researchers. In order to protect the identities of participants, pseudonyms and codes were created and are used henceforth. When interviews were conducted only partial anonymity could be guaranteed to research participants as the communities interviewed were relatively small – in each case probably only about a hundred individuals or even less. The use of pseudonyms and codes was, however, sufficient to protect the identities of participants and as far as possible, information of a specific nature that could reveal their identities was omitted.

3.6.1 Economist 1 (E1)

Economist at a HWI in Gauteng. Practices as an environmental economist. Conducts research within the field of environmental economics and has experience in teaching and currently teaches undergraduate students in economics. Supervises students at postgraduate level.

3.6.2 Economist 2 (E2)

Economist at a HWI in Gauteng. Practices as an environmental economist with a particular focus on energy economics. Has experience teaching at undergraduate level but currently teaches and supervises postgraduate students. Primary research focus energy economics.

3.6.3 Economist 3 (E3)

Economist at a HWI in the Western Cape. Practices as an education economist. Has extensive experience teaching and supervising undergraduate and postgraduate students. Also has extensive experience in managing economics departments.

3.6.4 Banking Professional 1 Bank 1 (BP1B1)

Senior education manager at a major bank. Academic background in education at a postgraduate level. Has extensive experience working in corporate and investment banking. Currently no exposure to the green economy – i.e. consideration of environmental sustainability and social justice challenges and opportunities.

3.6.4 Banking Professional 2 Bank 1 (BP2B1)

Sustainability manager at the same bank as BP1B1. Academic background in arts from abroad. Has experience in working across various divisions and departments in banking and the bank where they are currently employed. Has a strong focus on environmental sustainability as it is a core component of current role. Initiates, develops and implements various green economy related projects and initiatives (including training and awareness raising) across the organisation.

3.6.5 Banking Professional 3 Bank 1 (BP3B1)

Sustainability manager at the same bank as BP1B1 and BP2B1. Academic background in economics. Has experience in working across various divisions and departments in the bank where employed. Has a strong focus on environmental sustainability as it is a core component of current role. Initiates, develops and implements various green economy related projects and initiatives (including training and awareness raising) across the organisation.

3.6.6 Banking Professional Bank 2 (BPB2)

Senior manager at a major bank. Academic background primarily commerce related and at postgraduate level. Extensive experience in and currently working in commercial banking – a department within corporate and investment banking. Extensive specialised experience working with clients located in natural resources sectors of the economy: energy, mining and water. Main focus is on structuring and providing finance solutions to corporate clients. Exhibited strong compliance orientation.

3.6.7 Banking Professional Bank 3 (BPB3)

Sustainability manager at a major bank. Carbon specialist – i.e. carbon tax and carbon credits. Diverse academic background at under and postgraduate level which

includes economics with a specialised environmental focus, commerce, engineering and statistics. Current role entails carbon resource management, internal consultation and development of green financial products for revenue generation. Supervises and teaches postgraduate students at a university. Exhibited a strong technical orientation.

3.6.8 Banking Professional Banking Related (BPBR)

Sustainability related manager at government body tasked with overseeing banks in South Africa. Academic background in engineering at undergraduate level and commerce at postgraduate level. Experience working in corporate and investment banking at one of the major banks. Currently responsible for managing environmental impact of government body where employed.

Note: Insights from interview with BPBR will be utilised, where appropriate and applicable, in the case studies and/or data analysis but will not necessarily directly be incorporated in the case studies. This participant was non-conforming in terms of sampling criteria but the views and insights are still of value as BPBR works with the banking industry as a whole and has experience working in corporate and investment banking.

3.7 DATA ANALYSIS

Due to the use of a case study approach, extensive coding of data was not undertaken. Furthermore it has been observed that detailed coding can be counter-productive when a case study method is utilised – in one particular instance mentioned in the literature over 200 codes were generated and then consequently abandoned (Miles, 1979; Yin, 1981). The researcher does, however, need to guard against attempting to construct a superficially seamless narrative (Diefenbach, 2009; Yin, 1981; Miles, 1979).

The approach that was adopted for this study was therefore to construct a coherent if not completely seamless case study for banking and a separate case study for economics at higher education institutions. The data analysis which led to the development of the case studies was informed by the conceptual framework, as well as other relevant theories and concepts, as outlined in Chapter Two. This was neither easy nor simple, and is reflected to an extension in the presentation and analysis of

data, as the research participants view the green economy from at times widely divergent perspectives depending on their professional roles within an organisation.

In terms of **analysis of documents**, the analysis utilising the two conceptual frameworks presented at the end of Chapter Two, and sustainability reports from two major banks were analysed. With regard to the green economy practice in the banks, the review of annual sustainability reports allowed for the development of much clearer pictures. The researcher was very conscious of approaching the sustainability reports with adequate critical wherewithal. For instance, a bank that writes 20 pages on the Sustainable Development Goals, albeit eloquently, is not an example of practice. It does however give the reader some insight into their conceptualisation regarding green economy related matters such as environmental sustainability and social justice. Financing a renewable energy project or reducing the energy consumption of their buildings are, however, examples of practice.

All the primary data in the form of transcribed interviews and documents in the form of sustainability reports were read and re-read multiple times. With each reading, broad codes and from these, themes, as opposed to narrow and multiple codes (Yin, 1981), were developed. After each reading, themes were refined. If, after multiple readings the same themes emerged, these were retained and presented as such. The same procedure was utilised for the transcriptions of interviews conducted with economics academics. Where participants commented on the interaction between these two domains, these comments were presented in the synthesis section which examines the interaction between the two domains.

A critical component of the data analysis of this study was sequencing or the order in which processes took place. As a primarily descriptive case study approach was utilised, it was essential to allow the data to speak before engaging in critical analysis. In order to allow for this, key concepts developed from the literature were not utilised to develop and determine codes and then themes. Instead the interview questions and the responses of participants were utilised to generate codes and from these codes, themes were developed.

3.8 ETHICAL CONSIDERATIONS

In terms of ethical considerations, the following matters, inter alia, were carefully considered during this research: informed consent, confidentiality, anonymity and

reducing inconvenience and any potential harm that might arise from the research to participants.

Firstly, before conducting interviews ethical clearance was obtained from the university and the researcher was issued with an ethics protocol number (reflected on the cover of this research report). During the completion of the ethics application, issues that might arise and measures to overcome any of these issues were given due and careful consideration. It was determined that the only real harm that could come from participating in the research would be inconvenience in terms of the time required to participate in interviews. The researcher took every possible measure to ensure arriving well prepared at agreed upon locations on time. Interviews were also arranged well in advance in order to reduce any inconvenience to participants with mostly very busy schedules and multiple work and personal commitments.

In terms of confidentiality, recordings of interviews were stored on two memory cards kept in two separate safes and no one except the researcher was allowed to access the memory cards. Transcribed interviews were kept on a password secured laptop and a password secured online digital storage platform, both of which only the researcher could access. Transcribed interviews contained no information that would allow anyone, in the unlikely event of someone gaining access to the documents, to identify the research participants.

Written consent was obtained from all research participants and their organisations. Letters were sent to the research participants and their organisations explaining why I was conducting the research and requesting their participation. Information sheets providing detailed information on the research were also provided and if requested, further information and/or clarification regarding the research was duly provided.

Although participants were initially guaranteed only partial anonymity the manner in which the research has been presented here almost guarantees anonymity. Originally it was envisaged that the banks would be identified but as discussed earlier in this chapter, it became apparent as the research progressed that the focus of the study was more sensitive than originally anticipated. Hence the decision was taken not to name any organisation or individual and to, as far as possible, omit information that was not essential and would allow for the identification of an individual or organisation. In certain instances, information that could potentially

identify an organisation might have been included. The critical analysis and final findings are however nuanced enough to hopefully not be construed as unduly critical.

3.9 RESEARCH LIMITATIONS

This research has various limitations. More interviews were planned but due to issues of access, this was not possible. Linked to this limitation was the matter of the intended samples and actual research participants who ended up participating in the study. It was originally envisaged that corporate and investment banking professionals would be interviewed. The perspectives which surfaced from those who ended up participating were nonetheless extremely insightful and generative and contributed to the answering of the research questions.

A second limitation would be the complexity inherent in attempting to examine and analyse two domains and the interaction between the two. One domain could have been examined as the primary focus of the study. Although challenging, this study aims to also illustrate the value for this type of research – despite the challenges likely to be encountered.

A third limitation of this research was of a conceptual nature as the green economy is a highly contested concept.

Finally, trying to examine a phenomenon that is emergent posed its own challenges. Firstly, green economy thinking, and practice is to an extent still emergent and developing in South African banks. This means it is often not well understood by certain banking professionals. Secondly, it is viewed by some as a controversial and contested approach to value creation in the economy as a whole and banking in particular. Navigating the lack of clarity, combined with at times a high degree of controversy, results in the researcher often being unable to obtain clear answers to the questions posed. Hence the need to balance two, at times opposing, objectives which can be challenging: the first being the need for a certain degree of clarity in terms of presentation of results and analysis and the second, the need to, as accurately as possible, give voice to the ambiguity and contestation expressed by research participants. There could also be other limitations not discussed here of which the researcher is unaware.

3.10 STRENGTHS OF METHOD

The main strength of this method lies in that it balances a certain level of analytic rigour with creative and critical freedom. The method adopted also allowed for more advanced analysis beyond the limitations presented by cases studies which are solely descriptive in orientation. This is achieved by also utilising exploratory and cumulative case study approaches. By using qualitative content analysis, the data is adequately organised and fairly represented. Through the application of a critical lens, within a case study approach, it was possible to identify and engage with the prevailing practices and dominant ideologies of power individuals (Diefenbach, 2009) and the organisations they represent.

3.11 CONCLUSION

This chapter has presented the methodology of the study. The next chapter will cover data presentation and analysis in the form of case studies where the presentation of data has been interwoven with analysis. Although not necessarily streamlined, it is still coherent and reduces the risk of data presentation and analysis becoming disconnected. The analysis of one perspective is linked to the analysis of another leading to the construction of an analytic web.

CHAPTER 4: DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

This chapter presents the analysed data of the study. The data will be presented in the form of descriptive case studies: one for banking and one for economics at three higher education institutions. In order to enable analytic engagement with the data, a cumulative as well as exploratory case study approach was utilised to examine the interaction between the two domains. The approach is cumulative in the sense of comparing the two case studies to identify communalities and differences and exploratory in the sense of allowing for critical engagement across case studies. Each case study has been broken down into sections for clarity of presentation and corresponds to major themes identified during the course of data analysis.

Note: As a result of issues of confidentiality, and more specifically anonymity, related to agreements reached with organisations and research participants, only broad contextual information is provided in the case studies. For a more detailed discussion regarding this matter please see Chapter Three of this study. More in-depth, contextual information is provided in Chapter Two of the study.

4.2 CASE STUDY 1: THE INTERPRETATION OF THE GREEN ECONOMY WITHIN TWO MAJOR BANKS IN SOUTH AFRICA — AN EXAMINATION OF INTERNAL AND EXTERNAL DYNAMICS

4.2.1 Introduction to Case Study 1

Bank One is one of the four major banks in South Africa with assets of over ZAR 1 Trillion (2016). On an annual basis this bank releases a report that outlines how the organisation is contributing to a broader set of stakeholders that moves beyond shareholders and employees. In essence, the bank reports on the contribution it is making to the broader society of South African in which it operates.

The primary focus is to examine the extent to which the bank is taking part in and/or contributing to the transition to a green economy. Other documents could also have been analysed but sustainability reports/reports to society were selected due to the likelihood that the banks would use these reports to highlight and market any involvement in environmental sustainability and social justice initiatives. For Bank One it was possible to publically access and obtain reports for 2016 and 2018.

4.2.2 An Analysis of Documents: Two Banking Sustainability Reports

4.2.2.1 Bank One's interpretation of the Green Economy as articulated in its Sustainability Report

In 2016 Bank One generated an income of approximately R 100 billion (Bank One, 2016). It paid direct tax of just under R 10 billion making it one of the largest single taxpayers in South Africa. Its Corporate Social Investment spending amounted to a little under R 200 million (Bank One, 2016).

Large sections of the report are general information about the bank and in essence, the report is a sophisticated form of public relations. It is however interesting to note that a stakeholder survey was conducted by the organisation which indicated that two of the major issues stakeholders were concerned with were climate change and human rights (Bank One, 2016, p. 9). Large sections at the beginning of the report include inspiring messages from executives and diagrams illustrating strategic processes that were, are or will be undertaken by the organisation (Bank One, 2016).

For the purpose of this study, the focus of the analysis of sustainability reports was on the thinking, and at times practice, related to socio-environmental justice and sustainability. It should be made clear that the banks do not explicitly use the concept of 'green economy'. Based on interviews and analysis of documents it did, however, become apparent that they are familiar with environmental sustainability and social justice considerations as they relate to banking. The green economy was therefore a concept banks were not completely unfamiliar with.

What is the bank's position on environmental sustainability? Or put differently, what is the bank's interpretation of environmental sustainability as expressed in their sustainability report? Clearly within a given organisation (especially one with tens of thousands of employees and hundreds of departments and multiple divisions) there will be varied and conflicting perspectives on the role of the organisation in terms of environmental sustainability. The annual sustainability report is an expression of the organisation's official position and has a degree of legitimacy and authority. It is very difficult to imagine for instance that any employee, no matter how senior, would be able to make decisions or act in a way that directly contradicts the official position on a regular basis – unless given direct instruction by superiors to do so.

Environmental sustainability, along with social and economic impacts, is viewed by

the bank as one of the key areas where it can add value (Bank One, p.13). It specifically states that it is committed to promoting environmental sustainability – especially in terms of climate change mitigation and adaptation (Bank One, p.13). It would seem then that, in this regard, the organisation’s thinking is closely aligned with the World Bank and South Africa’s dominant conceptualisations of the green economy i.e. a green growth or weak green economy discourse (Ferguson, 2015; Death, 2014).

To determine the bank’s practice regarding environmental sustainability proved difficult and even after multiple readings of the report, it was difficult to extract evidence of concrete figures and actions. The bank screened just under 500 transactions in 2016 to determine environmental and social risks associated with projects for which it was planning to, or did, provide finance solutions for. The main focus of the bank in terms of environmental sustainability is on providing finance for renewable energy. The bank claims to have provided finance for energy projects which supply 40% of the country’s renewable energy (Bank One, 2016, p. 30). The bank states that 85% of its energy infrastructure investment in the four years from 2012 to 2016 was on renewable energy such as solar, wind and water with only 15% going towards non-renewable energy generation such as coal (Bank One, 2016, p. 32).

Despite these commitments, the bank states that it is equally aware of the need for affordable energy (even if non-renewable) and the employment creation opportunities offered by coal power generation (Bank One, 2016, p.32). This tension between the need for economic growth and employment creation whilst shifting to higher levels of sustainability (whether environmental or social) is indeed potentially serious and requires further investigation and research. Although it is indeed theoretically not only possible but desirable to shift towards higher levels of sustainability while creating employment, the transition for those in brown industries (such as coal mining) can be difficult, complex and resource intensive (Byrnes et al., 2013). The organisation also invested in ecotourism operations in South Africa (Bank One, 2016).

Based on an analysis of the document in question, it would seem that despite some high level rhetoric, the organisation is not extensively committed to socio-environmental justice and sustainability and that its interpretation of the green economy can be categorised as that of a weak green economy discourse (Ferguson,

2015). Its interpretation speaks to green growth, unmodified GDP, green consumerism and a focus on state security (Ferguson, 2015, p. 28). In some respects, it is not even engaging with the weak green economy discourse as it still makes allowance for the funding of brown (i.e. environmentally unsustainable) industries in the interest of employment creation and economic growth. This could be due to range of factors, both internal and external to the organisation.

4.2.2.2 Bank Two's interpretation of the Green Economy as articulated in its Sustainability Report

This particular bank (Bank Two) labelled its sustainability report as a social and governance report. Although these reports use different terminologies, they are all in essence a bank's report on its impact on the environment and society more broadly. Sometimes a single report is released by a bank whereas at other times there are multiple reports which address and report on the triple bottom line. The triple bottom line is the claim that a company's ultimate worth and performance is based on its financial, social and environmental performance (Norman & MacDonald, 2004, p. 245).

An analysis of this report was especially revealing and generative, not so much in terms of what was stated (or claimed) but in terms of what was absent. Absence was evident in the sense of concrete statistics and figures in terms of environmental and social activities on the part of the bank (Bank Two, 2017). The few concrete figures that were provided were also revealing. Although potentially requiring more in-depth analysis, this report raises the suspicion of whether adherence to the triple bottom line could act as a smoke screen of sorts, utilised to avoid accurate and in-depth environmental and social reporting (Norman & MacDonald, 2004).

The report contained extensive information on the organisation itself: its employee composition, geographic coverage, corporate governance structures and personnel, broad financial figures and other categories of information not directly pertaining to socio-environmental justice and sustainability (Bank Two, 2017). The report also listed various international initiatives, agreements and principles which the bank supports and to which it adheres, claiming this illustrates the bank's commitment to environmental sustainability and social justice: the Sustainable Development Goals (SDGs), Equator Principles, King IV, United Nations Principles for Responsible Investment, Group of Thirty (G30) and many others (Bank Two, 2017). Although it would be difficult, and indeed questionable, to critique an adherence to all these

initiatives, the causal efficacy of adherence to national and international agreements, reporting frameworks and principles which are often voluntary, is however questionable (Glachant, 2007). What is meant by this is that in the absence of concrete material consequences with regard to non-compliance to principles and guidelines, it is often the case that organisations do not perceive the value of compliance, and at times decide that non-compliance is in their best interest (Glachant, 2007).

In terms of environment, the bank stated it was actively involved in financing renewable energy (Bank Two, 2017, p. 33). Interestingly, no concrete figures were provided. What would be especially useful would be figures which show what percentage of finance is being provided to renewable as opposed to non-renewable energy firms and projects. The bank furthermore stated that:

“The greatest opportunity for reducing our impact is in the way we manage our buildings and business travel.” (Bank Two, 2017, p. 33)

This is somewhat problematic and worrying for two reasons. The first is that the direct environmental impact of an organisation in the financial sector, as opposed to an organisation in energy, manufacturing, agriculture or construction, is potentially negligible (Bilgen, 2014). The second reason is that the environmental impacts of banks (whether positive or negative) are primarily indirect but also have a multiplier effect. The impact is indirect in the sense that what they finance has far-reaching environmental and social consequences. If a bank, for instance, provides finance for a ten-year period to a clothing and textile firm known for the use of outsourced sweat shop labour, then the multiplier effect of the social harm caused can be immense. Alternately, if it provides finance to Eskom to build a coal-fired power plant, it can contribute to locking a country such as South Africa into the use of non-renewable energy for decades. The cost of Medupi and Kusile power plants combined were conservatively estimated as approximately R 447 billion as of 2019 (Donnelly, 2019). It is difficult to imagine that the payback period for a financier in such projects would be only a year or two or that the state and the national energy utility would be willing and/or able to shut down these plants and shift to renewable energy even within the next decade.

Concrete figures are provided for the organisation’s own energy consumption in their sustainability report reflecting their commitment to transitioning to sustainable

practices. According to their own criteria, they are failing dismally. In the year in question only 0.61% of their energy came from renewable sources (Bank Two, 2017, p. 36).

In terms of social impact, the main focus of the report is on racial and gender equity. Racial and gender equity are both pressing needs in a context such as South Africa where inequalities based on gender and race are perniciously persistent (Espí et al., 2019). In this regard, the bank is making substantial progress. Of new hires 69 % were black and 46 % were women (Bank Two, 2017, p. 39). It would, however, seem that the view taken of social impact is somewhat narrow in that it focuses only on the bank's internal operations as opposed to the funding and provision of financial services to organisations which are committed to socio-environmental justice and sustainability. No mention is made of external initiatives relating to the bank's core business which contributes to social justice.

The progress the organisation is making regarding racial and gender equity could be attributed to a veritable plethora of internal and external factors. It is however likely that Broad Based Black Economic Empowerment (BBBEE) legislation contributes positively to this movement towards higher levels of racial and gender equity. It also brings to the fore the positive role that could be played by legislation in banking, as social progress is being made by developing and applying legislation which seeks to redress historic and structural inequities.

Of all the sustainability reports considered for analysis, the sustainability report for Bank Two for the 2017 reporting year was the only one which contained some form of detailed educational information.

Of the 18 board members of the bank, 13 members held commerce related degrees, certificates, diplomas or professional designations (Bank Two, 2017, p. 15). Bachelor of Commerce and CA (SA) were especially well presented (Bank Two, 2017.p.15). This gives credence to one of the fundamental claims of this research report, that although the links between the discipline of economics, commerce degrees and banking are indirect and complex, there are nonetheless connections between the domains which warrant investigation and analysis. It is very unlikely that a commerce graduate in South Africa would not be exposed to the discipline of economics during the course of their degree.

The CEO of the bank holds a master's degree (MSc) in economics (Bank Two, 2017,

p.15). As will be seen later when the perspectives of economists'/economics lecturers are presented and analysed, it is unlikely that even a postgraduate economics student would be exposed directly and at length to socio-environmental justice and sustainability considerations during the course of their studies. Engagement with these domains of enquiry is unlikely except if a student specialises in sub-fields such as energy, environmental or welfare economics.

In summary then it would seem that Bank Two did not engage substantively with green economy concepts and practices. It would be difficult to even classify its interpretation as that of a weak green economy discourse (Ferguson, 2015). The sustainability report does contain certain elements of a weak green economy discourse but overall it can best be classified as a 'business as usual' discourse, where the discourse is one with no or minimal and superficial engagement with socio-environmental justice and sustainability. Both banks, based on an analysis of their sustainability reports, could be said to be located somewhere on the continuum between a business as usual and weak green economy discourse.

As with Bank One the reasons for the relative lack of engagement are manifold and located within and outside the organisation.

4.2.3 Semi-structured Interviews: Examining the Role of External and Internal Dynamics on the Interpretation of the Green Economy

What is a senior manager's (working in commercial banking) perspective on environmental sustainability? Although the focus of the interview with the senior manager in Bank Two was on socio-environmental justice and sustainability considerations, the manager focused strongly on environmental sustainability and seemed to struggle to connect environmental sustainability and social justice considerations.

Overall, the manager focused on and emphasised financial viability, risk and sustainability of the projects that are considered for financing, compliance (in terms of working strictly within the confines of the law) and the leading role that needs to be played by the state. The manager also emphasised that in certain instances, new legislation was required. He claimed that once the legislation was in place, the bank he works for and represents, as well as other banks, would have to comply with the legislation.

He stated that:

“If government introduces and embraces new policy it is our duty to support the policy as a responsible corporate citizen.” (BPB2, personal communication, 2018).

The central role government needs to play in socio-environmental transitions was corroborated by a senior official at the independent body responsible for overseeing and regulating the banks in South Africa. He stated that:

“There needs to be a stronger emphasis especially from government that includes incentives for people who are pushing the green agenda.” (BPBR, personal communication, 2018)

This senior official, who had worked as a corporate and investment banker at one of the four major banks in South Africa, also commented on the centrality of profit maximisation for the banking industry:

“In the investment world they deal mostly with return on investment. When I was working at a commercial bank as a chief engineer one of the reasons why we could not implement energy and sustainability projects was that when you calculated the return on investment it did not make sense. Our guideline was to invest in projects that have a pay-back period of three years.” (BPBR, personal communication, 2018)

The senior manager in commercial banking (Bank Two), on the other hand, emphasised the tension between the need to move to higher levels of environmental sustainability and social justice and other pressing organisational, social and economic needs. In a discussion on the continued use of coal as a source of energy, he stated that:

“Even if you do not supply coal it will not stop the global demand. It is a very fine balance. In a country with very high levels of unemployment we need to be very careful with industries like this.” (BPB2, personal communication, 2018)

This statement can be interpreted in various ways. It could be viewed as a form of ‘green washing’ or outright corporate disinformation (Laufer, 2003). The risk of corporate disinformation, to varying degrees, should not be downplayed; this is especially the case if the view articulated is an official one and emanating from someone in a position of authority (Diefenbach, 2009). Although in this instance there could be a degree of corporate disinformation, the point made is a legitimate one in the sense that the deeply structural and complex nature of the transformation to a green economy is often not sufficiently engaged with (Cai et al., 2011).

In summary, engagement with research participants indicated that there are clear tensions at work within banking regarding the shift to a green economy. Although recognising the need to transition to a green economy, whether weak, transformational or strong (Ferguson, 2015), the views indicated that internal and external forces and tensions in banking were inhibiting the transition to a green economy. Participants articulated the difficulty and complexity involved in transitioning banking from a business as usual orientation (with certain minimal or legislated engagement with socio-environmental considerations) to one with a stronger focus on socio-environmental justice and sustainability.

These tensions have implications in terms of the role education (in terms of formal higher education and training programmes offered at work) plays or could play in the shift to a greater focus on the green economy in banking.

4.2.4 The Role of Higher Education and Training Programmes at Work in Influencing Green Economy Interpretations in Banking

In terms of higher education what is meant for the purpose of this study are formal degrees (at undergraduate and/or postgraduate level) obtained at universities. Training programmes are internal education initiatives offered or funded by a bank.

Research participants were asked to reflect on the role formal education had played in their ability to execute projects with a strong environmental sustainability focus. At times contextual information pertaining to the research participant is provided in order to provide clarity.

For BPBR formal education played a critical role. When asked about the role formal education had played in their ability to execute green projects, he stated:

“A major role. I am a qualified engineer. That makes it easy to understand renewable energy. I come from the sugar industry.” (BPBR, personal communication, 2018)

Although stating formal education was crucial, he also emphasised the role of his formative years of work experience in orientating him towards environmental sustainability later in life; he had worked in the sugar industry where the efficient re-use of materials and energy was critical to the business process (BPBR, personal communication, 2018). No mention was made of explicit exposure to socio-environmental thinking and practice during the course of his engineering degree. Based on his perspective and experience, the participant did not seem to make links between environmental sustainability and social justice.

In Chapter Two of this report it was argued that the dominant green economy discourse operational in South Africa is that of green growth (Death, 2014). The South African green economy discourse is also closely aligned with World Bank articulations of the green economy where, although social justice is mentioned, it is not core to their vision. Engagement with BPBR confirms there are individuals who do not see the intricate and intrinsic connections between environmental sustainability and social justice as has been advocated and argued for by environmental education researchers and practitioners in South Africa for well over two decades (Lotz-Sisitka, 2009; Janse van Rensburg, 1994; O'Donoghue, 1993). This is disconcerting in a context such as South Africa with its interlinked challenges of socially unjust and environmentally unsustainable socio-economic practices. Linking the two will not be easy but there is, and has been for some time now, a need to make the requisite connections in industry. How this will take place, in terms of education and practice, is indeed a “wicked problem” (Lotz-Sisitka et al., 2015); especially in the context of organisations and systems still predominantly located within a ‘business as usual’ discursive framing and orientation.

4.2.5 The Potential Need for Transdisciplinarity: Thinking Outside of Disciplinary Boundaries

Sustainability managers at a major bank BP2B1 and BP3B1 are both committed to transitioning their organisation towards business activities that are more environmentally sustainable and socially just. As both were highly committed

sustainability managers, and experts in their field, their perspectives were closely aligned. Both were deeply committed to transitioning to higher levels of socio-environmentally just and sustainable thinking and practice at their organisation and in the banking industry more broadly.

BP3B1 was educated in South Africa and previously practised as an economist in the banking industry. BP2B1 was educated in the US and studied what is commonly referred to as a liberal arts degree with a major in political science. Neither had been exposed extensively to socio-environmentally just and sustainable thinking and practice during their formal higher education degrees. Their understanding had arisen and developed through work experience, short courses and other forms of exposure. They did however strongly favour the inclusion of socio-environmentally just and sustainable thinking and practice as a core component of higher education degrees – especially in the discipline of economics.

“People need to think holistically and realise we live in a world with finite resources. Finite environment. If you can get people to get that lens on they will hopefully, one thinks, be able to make more informed decisions.”
(BP3B1, personal communication, 2019)

Later parts of this chapter illustrate how certain economists argue that environmental sustainability and social justice should be incorporated into economics but only at later stages as a specialisation. Both sustainability managers strongly disagreed with this and stated that: “Green economics should be foundational” (BP2B1, personal communication, 2019; BP3B1, personal communication, 2019).

Both sustainability managers openly endorsed the UNEP definition of the green economy linking environmental sustainability and social justice. In terms of social justice considerations, they argued that:

“You need to understand social economics as well. Poverty trap or functions as a barrier. Kenyans who still use paraffin. You can’t get connected. Hurdles. Shack fires. You can’t just be customer focused, you need to be context focused as well.” (BP2B1, personal communication, 2019; BP3B1, personal communication, 2019)

They both argued for a much more holistic, systemic, critical and contextually grounded and informed philosophy and approach to formal education at higher education institutions and in terms of training offered by banks themselves. They concluded their interviews by describing their approach to education and training with regard to the inclusion of socio-environmental justice and sustainability:

“Without having the context set at the bottom and connecting the dots, problems will arise. When you start connecting the dots, you get critical thinkers. That is what we need. People need to be rounded and to think with a wider lens. Think in a non-linear fashion.” (BP2B1, personal communication, 2019; BP3B1, personal communication, 2019)

What they are arguing for could be viewed as a form of transdisciplinarity (Max-Neef, 2005). In the conclusion of his exposition of transdisciplinarity, Max-Neef, (2005, p. 15) offered a clear definition of transdisciplinarity which to an extent aligns with the position of the two sustainability managers:

“Transdisciplinarity ... is, actually, a different manner of seeing the world, more systemic and more holistic”.

To “think with a wider lens” (BP2B1, personal communication, 2019; BP3B1, personal communication, 2019) in the pursuit of socio-economically just and sustainable thinking and practice in complex and contested states of transition will be difficult if one remains within the confines of a single discipline or mode of thinking (Lotz-Sisitka et al., 2015). What is needed is a crossing of disciplinary boundaries (Gordon, 2014) where there is a movement away from “an absolute conception of disciplinary life” (Lotz-Sisitka et al., 2015, p. 74) towards a form of transdisciplinarity which is itself also not guilty of “disciplinary decadence” (Gordon, 2014, p. 86) which can often result in a “turning away from living thought” (Gordon, 2014, p. 85). The case needs to be made for a form of transdisciplinarity which leads to “co-engaged forms of knowledge production and pedagogy” (Lotz-Sisitka et al., 2015, p. 75).

In later sections of this chapter, when the views of economists/economic lecturers are critically engaged with, this tension between transdisciplinarity and disciplinarity (Max-Neef, 2005) or “disciplinary decadence” (Gordon, 2014) will be further explored.

4.2.6 The Role of Market Demand, Educational Background and Professional Role in determining Green Economy Interpretations and Practice

The perspectives of BPB2, a senior manager working as head of a commercial banking division in a bank, and BPB3, a sustainability manager who is a carbon trading and tax specialist, are analysed together – they had very different perspectives but certain core beliefs that were similar. Although from different organisations (Bank Two and Bank Three), both seemed committed to specialisation at work and disciplinarity in education. Both did, however, recognise the need to transition to higher levels of environmental sustainability and social justice in the banking sector with the sustainability manager more strongly committed than the commercial banking manager to socio-environmental justice and sustainability.

An analysis of their perspectives brought to the fore that one's current role within an organisation, one's educational background and one's professional history and experience all play a crucial role in shaping how one views socio-environmental justice and sustainability. This leads to a situation where multiple and even competing interpretations of the green economy, ranging from a business as usual to a transformational green economy discourse (Ferguson, 2015), are operational in a single organisation. BPB2 articulated a view of the green economy which corresponds to an interpretation located on the continuum between a weak green economy discourse (Ferguson, 2015, p. 28) and a business as usual discourse.

BPB2, a senior manager within commercial banking who often works with clients whose core business is that of the generation of non-renewable energy, emphasised compliance with legislation and the risk associated with a transition to a green economy. In terms of compliance, he stated that:

“Focus on law. From a sustainability perspective we are sensitive in terms of finance projects where there is environmental risk. We have a unit that focuses on new business. There are very specific criteria we use in terms of environmental sustainability.” (BPB2, personal communication, 2018)

In terms of environmental sustainability in banking, he emphasised that although he was aware of such factors, as it forms an integral part of risk assessment and management which is critical to his role, the responsibility and focus for such matters rested primarily with specialists. These specialists are trained regarding various aspects related to environmental sustainability in their formal degrees as well as through internal training offered at the bank. He explained that:

“We also have an internal unit at the bank who specifically focus on environmental sustainability. Specialists who have postgraduate degrees in environmental studies. Specific channel where appropriate training and development takes place.” (BPB2, personal communication, 2018)

The above potentially points to the lack of widespread and broad-based engagement with socio-environmentally just and sustainable interpretations within the organisation. From his perspective, the bank was not at fault in terms of environmental sustainability and social justice as it was complying fully with applicable national and international legislation and best practice. His focus was primarily on what existed and he understandably concentrated on working within those boundaries.

In terms of formal education, he proposed a much stronger focus on socio-environmentally just and sustainable engagement in traditional commerce degrees offered at universities.

“It might be useful to see universities do more in this space. Degree in finance but with a more robust understanding of the triple bottom line: social, environmental etc.” (BPB2, personal communication, 2018)

BPB3, a sustainability manager and carbon trading and tax specialist, is one of the specialists referred to by BPB2. When asked about the role formal education had played in his ability to be involved in and advocate for green economy related projects, he claimed it had been crucial.

“To me it has been critical. Started off with chemical engineering at Stellenbosch. Then did a masters of artificial intelligence then did a PhD in project management and risk management at Pretoria with a focus on carbon credits. MBA also at Stellenbosch.” (BPB3, personal communication, 2019)

When asked about the role of internal training, he offered insightful comments. It would seem that most of the training he was involved in was linked to a university and not a core component of the organisation’s training initiatives. He did, however, refer to an induction programme for learners at the bank.

“Learnership induction program regarding sustainability. Sustainability in pictures. What is done externally and what is done internally. Main focus is how we can make money by polluting less.” (BPB3, personal communication, 2019)

His last comment is especially revealing in that it would seem to align with the green growth or weak green economy discourse prevalent in the South African policy landscape (Death, 2014). This discourse is also closely aligned with the World Bank vision of a green economy (World Bank, 2012).

BPB3’s position should not be unduly criticised. His identity and material interests as an accomplished and highly educated professional rest on his ability to perform what is essentially an extremely difficult balancing act: being able to work towards higher levels of environmental sustainability and social justice within an industry where the primary focus is sustainable profit maximisation. What is, however, disconcerting is the question of what happens when there is conflict between the maxim, and often legal obligation to shareholders, to increase profits and pressing environmental and social considerations. Without being cynical, it would seem that, understandably but regrettably, profit maximisation takes priority over environmental sustainability and social justice considerations.

A potential way forward out of this quagmire was, however, offered:

“It is about supply and demand. We need to be put under pressure by clients.” (BPB3, personal communication, 2019, p. 3)

The above is by no means the main or sole solution to the current situation in banking and elsewhere. It does, however, point clearly to the role that higher levels of environmental awareness and environmentally conscious behaviour on the parts of clients (such as an increased demand for environmentally sustainable housing finance) could play in shifting banks to higher levels of environmentally sustainable and socially just business practices. It must be noted though that higher levels of environmental awareness by no means lead directly and simply to environmentally responsible behaviour (Kollmuss & Agyeman, 2002). A plethora of factors, internal and external, can and do influence the causal relationship between environmental awareness and environmentally responsible behaviour (Kollmuss & Agyeman, 2002). Nonetheless, it would be potentially problematic to focus only on banks and to not also recognise that demand by clients, i.e. broader systemic dynamics, also plays a not insubstantial role in shaping a bank's interpretation of the green economy.

4.2.7 Exploring Justifications for a Business as Usual Discourse and Orientation

For a senior education manager at Bank One, the green economy played no role in his work or for many of his colleagues. His view was that outside of specialist circles, such as sustainability managers and experts, environmental sustainability and social justice were mostly foreign concepts in a banking context (BP1B1, personal communication, 2018). What is especially disconcerting was that he works at an executive level and his division is responsible for training all new entrants into the bank. His argument was that due to the lack of basic skills of incoming graduates, with the bank often being their first full-time formal job, there is little to no time to focus on environmental sustainability and social justice as this was not core to the bank's operations.

“People won't know what it is. Unfortunately, the entry level graduates cannot even communicate well. Reflection on the education system maybe. We need to get the basics right first.” (BP1B1, personal communication, 2018)

He was brutally honest about the material reality at the organisation in that he claimed that co-workers tended to focus almost exclusively on that against which their performance was measured. This measurement ultimately determined their remuneration rates, stability of their employment situation and potential for promotion.

“We are so busy with our daily tasks. Take for instance a branch or regional manager. They have sales targets. Their KPI does not include sustainability.” (BP1B1, personal communication, 2018, p. 1)

His perspective illustrates that a myopic but understandable (considering the primary rationale of the bank is the generation of profit) focus on daily tasks leaves little time or space for critical reflection of the socio-environmental impact of one’s work. In a hierarchical organisation, except maybe for executives in positions of power and authority, there is little space for focusing on matters which are not directly related to the specific role for which one is appointed. This points to the potential linkages between political economy and political ecology as labour (albeit in this instance professionals who have some semblance of power in their organisations) which is subordinated to the dictates of organisations operating within a business as usual framing. There is limited power or opportunity to challenge or question socio-environmentally unjust and unjust business practices (Lotz-Sisitka & Ramsarup, 2020, p. 218).

4.2.8 Conclusion to Case Study 1

This section has provided tentative insights which point to the need for a more complex and systemic examination of the forces operational within and outside banking which could, and sometimes do, inhibit a transition to green economy thinking and practice. Although there are indications that education, whether higher education or training programmes at work, has a role to play in the more widespread adaptation of green economy thinking and practice in banks, this does not mean that external forces influencing banking should be neglected or downplayed. One of the external forces potentially inhibiting a transition to green economy thinking and practice is the continued demand for products and services in the marketplace which lead to environmentally unsustainable and socially unjust outcomes. The particular

logics of organisations, such as a still prevalent logic in banking where the primary focus is that of profit maximisation (whether in the short or long term), should also be given due analytic consideration.

4.3 CASE STUDY 2: A CRITICAL REVIEW OF THE ROLE ECONOMICS COULD PLAY IN SHAPING HOW BANKS INTERPRET THE GREEN ECONOMY

4.3.1 Introduction to Case Study 2

Three economists/economics lecturers from three different universities were interviewed. Two of the universities were located in Gauteng and the third was situated in the Western Cape.

All three economists were primarily, at the time of the interviews, involved in teaching at postgraduate level and conducting research in their respective fields. All three did, however, have experience working with undergraduate students. As discussed in Chapter Two of this research, the banking industry is changing (due to technological advancements and other factors) with an increasing preference for STEM graduates (Oluwajodu et al., 2015). Nonetheless, almost 50 % of graduates employed by banks come from a commerce background (Oluwajodu et al., 2015). In commerce degrees in South Africa, it is often the case that anything between one to two years of economics is considered compulsory by most universities.

Albeit via an indirect relationship, the discipline of economics is nonetheless still influential in the banking industry (BankSETA, 2019). On a more macro level, economics also carries a certain weight in terms of how it makes sense of, or frames, how the broader public (i.e. non-economists) views economic activity – in terms of its primary purpose as well as in diagnosing the causes of economy-wide crises, dysfunction and inefficiencies (Pühringer & Hirte, 2015). It was found, for instance, that German economists characterised the 2008 financial crisis as an externally caused event, the origins of which lay outside of the system (Pühringer & Hirte, 2015). Others, however, make a compelling case, drawing primarily on the theoretical work of Marx and a detailed critical analysis of historic economic crises, that the capitalist system is by its very nature crisis prone, or indeed that crises are essential for systems to regenerate or reproduce themselves (Harvey, 2014).

Despite controversy and contestation, the discipline of economics, whether

neoclassical, mainstream or orthodox, is nonetheless immensely influential (Dequech, 2007) warranting an examination of the extent to which the discipline is engaging with the interconnected issues of environmental sustainability and social justice. As illustrated in earlier chapters, there are particular relationships between economics and the banking sector in South Africa.

4.3.2 The Need to Transcend Rigid Disciplinary Boundaries

When asked about the inclusion of the green economy in economics curricula at undergraduate level, E1 stated the following:

“Environmental economics tends to be an optional module or course. Therefore they will not have knowledge of issues of sustainability. Being taught but as a niche. Essentially you will do environmental economics at third year level. First you need the fundamentals: micro and macro. Environmental economics is a specialisation. You need to have a solid background in macro and micro economics. Many universities also don’t offer environmental economics.” (E1, personal communication, 2018)

What stands out from the above is the fact that environmental sustainability is seen as a specialisation and not as a core (or cross-cutting) concern in the discipline of economics. One reason for this could be the operation of a strong mono-disciplinary logic (Max-Neef, 2005). It is also worth noting that E1 emphasised the necessity of students first having a firm epistemic grounding in the foundations of the discipline before being ‘allowed’ to proceed to more specialised fields of enquiry within the discipline.

The fact that environmental economics is only offered at third year level is especially disconcerting as that would mean that most economics students (who do not major in economics) are not exposed to issues of environmental sustainability *and* social justice considerations at the economics department in question. Most commerce faculties require a maximum of two years of economics for Bachelor of Commerce students not majoring in economics. This means that the likelihood of students not majoring in economics being exposed extensively to socio-environmental justice and sustainability considerations in the subject of economics would be minimal.

Gordon (2014) argued that there is always more to reality than any one discipline can deal with. It would be impossible for economics to deal with the entirety of reality although the above indicates the potential need for socio-environmental justice and sustainability to become one of the central foci of economics. A global case has been made (Raworth, 2017) but there is a potential need to argue and agitate for the broad-based inclusion of socio-environmental justice and sustainability considerations in economics in the South African context.

4.3.3 Making the Case for the Gradual Inclusion of the Green Economy in Economics

E2, a leading energy economist, was optimistic regarding the slow but steady inclusion and mainstreaming of environmental considerations in the field of economics.

“Green economy is starting to find its place. In economics it is often called externalities. What is an externality? It is something that happens by the way. If I have a furniture factory for instance and I throw all my waste in the river next to the factory – that’s a negative externality.” (E2, personal communication, 2019)

It is interesting to note that the view of environmental sustainability articulated above holds the assumption that the primary purpose of economic activity still remains the efficient production of goods and/or services (in this instance, furniture). The fact that waste is dumped in the river (or not for that matter) is of secondary concern. For instance, in one of the economics textbooks examined, the current dominant view of the primary purpose of economic activity is clearly stated:

“Firms are essentially concerned with using inputs to make output. Inputs cost money and output earns money. The difference between the revenue earned and the costs incurred constitutes the firm’s profit. Firms will normally want to make as much profit as possible, or at the very least to make satisfactory profits and certainly to avoid a decline in profits.” (Sloman & Jones, 2017, p. 1)

This points to a potentially radical kernel in articulations of a green economy that is often left unexplored. If the primary purpose of economic activity becomes the creation of an environmentally sustainable and socially just compensation (within and outside national boundaries), then it would be a truly radical endeavour. Embracing this radical kernel and developing it, or following it to its logical conclusions (including the challenging of a dominant discourse that views continued and endless economic growth as the panacea to all social and economic ills) (Nørgård & Xue, 2016), holds the embryonic potential of the genesis of a true socio-economic transformation.

As mentioned by Death(2014), a radical green economy discourse has thus far only found traction in academic and activist circles. This points to the limitations of an approach to the green economy that is radical in its intent and content and the merit of a gradual transition along the spectrum from business as usual to an eventual strong green economy (Ferguson, 2015). Alternately, it could be argued that considering the extent of the multiple and intersecting crises we are faced with, it is exactly now when a strong green economy (Ferguson, 2015, p. 28) interpretation should be embraced, promoted and democratically agitated for.

E2 expressed a passionate (but deeply rational and systemic) commitment to the urgent need for transformation, of the discipline of economics as well as all other aspects of human thought and action, to address the immense challenges posed by economies and societies which continue to act in socio-environmentally unjust and unsustainable ways.

“If we start reading through what will happen if we don’t make the 2 degrees’ Celsius target it is crazy. It is not the direct effects. Because people hear this climate change and the higher temperatures. Aghhh its okay I live in Russia so the weather will be better and the agricultural production will increase. But that is the short run. In the long run, people will be moving around because they do not have water. It is not something that only affects the environment. For example, it will affect urban planning. Look at Cape Town with the drought. They have to re-think the city.” (E2, personal communication, 2019, p. 2)

E2 was also firmly committed to the gradual and systemic transformation of economics. In terms of the inclusion of the green economy, E 2 advocated for what seemed to be a highly viable middle way. Although by no means opposed to specialisation, the argument was presented that traditional economic concepts and methods could be used to address issues of socio-environmental justice and sustainability in terms of the topics covered in the curriculum.

“So I won’t be able to explain development and how energy economics plays a role in that if you don’t first understand what is economic growth. We can use more time in first and second year to use as example SDGs and how this fits in with the economic growth of countries. Start bringing in the issues there so that when it is third year you can go into the real energy economics.” (E2, personal communication, 2019, p. 2)

This middle way is indeed appealing and warrants further exploration. What is especially attractive about it is that it offers a gradual and systemic approach that reduces the risk of alienation or resistance. In essence, what she argued was that conventional ‘core’ economic theories and concepts be taught but applied in scenarios or using cases where there was a strong focus on environmental sustainability *and* social justice. This would also have the added benefit of allowing for exposure early, motivating students to the possibilities of specialising in economic sub-disciplines, such as welfare, energy and environmental economics, all of which have strong focus on socio-environmental justice and sustainability. Furthermore, it would guarantee that all students, including commerce students who study economics but who do not major in it, would at a minimum be exposed more extensively and rigorously to socio-environmental justice and sustainability during the course of their studies.

E2’s position does indeed have merit. Her position and orientation is, however, possibly relatively rare and to an extent determined by her deep-rooted professional and academic commitment to the field of energy economics. More in-depth and extensive quantitative research would be required to determine the viability of such an approach. Considering the strong forces driving economics away from such a compromise, it remains to be seen whether such an approach, albeit desirable, is indeed workable.

4.3.4 Business as Usual: The Invisible Hand of the Market and Making the Case for Disciplinarity

E3's perspective was unique as he was not directly involved in teaching and research related to environmental sustainability in the discipline of economics. When asked about **the inclusion of GE in economics curricula**, he stated:

“I think it is included in various ways. The whole question of utility is defined by what people want. So if what they want is the greening of the economy then that will be part of the utility function. And that would therefore drive what happens in terms of their consumption.” (E3, personal communication, 2019)

In essence what E3 was arguing was that economic systems were neutral in that they merely responded to demand. Based on the nature and extent of the demand (for instance, beef, despite its negative environmental impact), the system would respond to this demand efficiently and allocate resources accordingly. There is some legitimacy to E3's perspective: firstly, consumers do have some responsibility in terms of determining the contours of the socio-economic system due to the nature of their demand for certain goods and services, and secondly, the market, operating without interference, can at times often allocate resources highly efficiently (Gode & Sunder, 1997).

It could, however, be argued that the view articulated by E3 is, to an extent, a form of what is known as ‘market fundamentalism’ (Block & Somers, 2014). Market fundamentalism poses a serious challenge to the green economy as all versions of the green economy, from a weak green economy discourse to a strong economy discourse, allocate a central role to be played by the state. The state has been shown earlier in this report to often be weak and ineffective in implementing policy.

It is difficult to offer a single succinct definition of market fundamentalism (Block & Somers, 2014). Considering its immense influence and power and the role this world view could and does play in interpretations (or rejections) of the green economy, it is worth attempting an explanation here.

Firstly, in market fundamentalism the market is seen as an all present force which is an impartial authority which works according to certain rules and principles (Ötsch & Pühringer, 2017, p. 6). Secondly, the market, and its unobstructed operation, is seen as a norm for economic and other policy. Thirdly, it is a fiction and aspirational ideal as in no point in history has an economy and society operated purely on market principles (Ötsch & Pühringer, 2017, p. 6). Fourthly, it is fundamentally apolitical and exists outside of temporal constraints and context. Fifthly, although claiming that it is merely an expression or articulation of an existing all-encompassing reality, it is strongly utopian in its orientation (Ötsch & Pühringer, 2017, p. 6).

The above position is potentially deeply problematic on multiple fronts. A position which does not actively engage with environmental, social and economic contextual needs and variations is disconcerting. This could constitute what Gordon describes as “... a phenomena of turning away from living thought, which engages reality and recognises its own limitations...” (2014, p. 85).

Furthermore, to claim that there is an invisible force which is apolitical and exists outside of (yet within and part of) actually existing power dynamics, is also questionable. Economies and societies are surely not controlled by an invisible force but by powerful ruling business and political elites who sometimes act in the best interest of all and at other times clearly do not (Gilens & Page, 2014).

There are strong empirical cases to be made against market fundamentalism as well. One of the strongest of these is that of the 2008 financial crisis and the events that followed. Firstly, the financial crisis illustrated that the market and the actors therein, especially the financial sector, left to their own devices, could be extremely unstable and destructive (Harvey, 2014). Secondly, extensive intervention by the state was required to avoid complete economic collapse (Overholt, 2010).

From a green economy perspective, market fundamentalism also poses serious challenges as research has indicated that the transition to a green economy will require extensive state intervention: whether it be in the form of regulation, public investment, incentives or state enabled network and capacity building (Droste et al., 2016, p. 432).

E3 did, however, agree with E2 that there was room for improvement and that economics could be overbearing and stifling in its claims regarding reality – economic

and otherwise. Although deeply committed to disciplinary rigour (understandably so), E3 did admit that there was the potential to use standard economic tools to look at unconventional topics that had not previously been considered within the boundaries of the discipline.

“I think economics will continue expanding in different directions as it is presently doing. Economics has been quite imperialist, which partly explains the reaction to it, in the sort of way it has percolated through society. Economics provides us with very powerful tools and that is why it makes it attractive to look at very different things. For example, my colleague who is looking at maternal mortality by examining the demand and supply of services. Basic economic tools but looking at non-standard topics.” (E3, personal communication, 2019, p. 3)

It could, however, be argued, in opposition to the position advocated for by E2 and E3 regarding the use of conventional economic theories, concepts and tools to address non-conventional topics, that it is potentially difficult to make a clear distinction between theories, concepts and tools on the one hand, and topics covered by a discipline on the other. What is meant by this is that the form and content of a discipline are not always easily separable as form could influence content and vice versa. There is a practical component that also needs to be considered. If mastery of the foundational concepts and tools of economics is the primary focus then it could lead to an eclipse of other subject matter or to students, the majority of which engage with the discipline for only two years, barely being able to master core principles much less being able to apply said principles to non-conventional scenarios.

“In a typical undergraduate degree you have only started to absorb some of the thinking and it has not become a part of you. I don’t think it is adequate (three-year Bachelor of Commerce majoring in Economics) to absorb the sophistication and also the tools of economics and to think of it in terms of system.” (E3, personal communication, 2019, p. 3)

E 3 further stated:

“I think after masters most people are economists. But those who go to postgraduate studies, generally, have already absorbed a lot more than the average student. To some extent some may have arrived at that level at third year already. I know I did not.” (E3, personal communication, 2019, p. 3).

E 3 advanced various arguments but certain contradictions emerged upon further analysis. If most commerce students who were exposed to only two years of economics, and even those majoring in economics, were not nearly adequately equipped to be competent economists (according the disciplinary logic and standards) then why continue to exclude certain foci? What is being argued is that the failure of imparting core economic concepts and tools (due to internal factors such as the inherent complexity if the subject matter in question) could potentially open the space in economics for allowing in other orientations and subject matter (such as the green economy) that are not traditionally covered.

It would, however, seem that there are strong forces in the discipline of economics which could lead to such endeavours not being actualised. A tendency towards mono-disciplinarity where the primary focus is the mastery of methodologies and rules of the discipline (Gordon, 2014, p.85) and an ideological commitment (whether implicit or explicit and to varying degrees) to market fundamentalism both potentially inhibit the inclusion of the green economy in economics.

4.3.5 An Examination of Two Economics Textbooks

Two economics textbooks used in South Africa were also examined for the purpose of this research report. Requests were sent to economics departments of the three universities where interviews were conducted to provide details of the textbooks used. It must also be made clear that a thorough analysis of only a selection of economics textbooks would in and of itself require an extensive and extended study. It was nonetheless decided that a brief analysis of textbooks would enrich and strengthen the data presented in this chapter.

The **first textbook** examined was *Economics: Principles, Problems and Policies* (21st Edition, published in 2018 by McGraw Hill Education). In terms of social justice, the following terms were used to search through the text: social, social justice, gender equity/equality, racial equity/equality and class. In terms of environmental sustainability, the following terms were used: environmental, environmental sustainability, climate, climate change, green, green economics and global warming. The textbook in its entirety is 983 pages (McConnell et al., 2018).

For terms such as ‘social justice’, ‘gender equity’ and ‘racial equity’, no results were returned. As these terms are future orientated and refer to what we want or should do (Max-Neef, 2005), it is not surprising they did not surface in an economics textbook. The analysis offered earlier in this chapter argued that economics as a discipline is (or aspires to be) firmly grounded, for a variety of reasons, in the domain of what is or actually presently exists.

‘Social’ was potentially a sub-optimal selection for searching given its broad scope. A total of 295 results were generated. In the process the term ‘socialism’ was automatically suggested as a search item. It was found four times in the textbook though only once discussed briefly as part of a discussion on the failure of pure command system economies such as North Korea and the ex-Soviet Union (McConnell et al., 2018, p. 28), in the main body of the textbook. The remaining three times it was found in the ‘terms and concepts’ section of the textbook or as part of references and footnotes.

Neglecting an in-depth examination and discussion of an entire system of organising economies and societies, which is still influential in large parts of the world, is deeply problematic, despite the discipline of economics claiming to be primarily focused on understanding the world as it is. It is furthermore problematic in that a strong case can be made that state intervention (potentially extensive and reaching across national boundaries) will be needed to transition to a green economy (Droste et al., 2016). It is not being implied here that there is an explicit attempt made to advance one world view over another. But the exclusion of certain topics, or more specifically how certain topics are approached, is an implicit and subtle power play which through omission forecloses on much-needed debate and critical discussion.

The term ‘environmental sustainability’ was used only once in the textbook. This was as part of a discussion of fair trade products (McConnell et al., 2018, p. 172). The

term 'environmental' was used 49 times. It was often linked to protection with the term 'environmental protection' used ten times. 'Green economy' returned zero results. 'Global warming' was used five times and was at least engaged with substantially in that it was included in a section on market failure in competitive markets (McConnell et al., 2018, p. 77). 'Climate change' was mentioned only twice. In sharp contrast, the term 'market' was used 1874 times, 'price' 4097 times, 'demand' 3264 and 'supply' 2236. There was however also a discussion included on the merits of de-growth which can be viewed as a laudable inclusion (McConnell et al., 2018, p. 567).

One possible explanation for why the textbook in question does not engage extensively with green economics can be found in its explanation of the difference between positive and normative economics (McConnell et al., 2018, p. 6). According to the explanation offered, positive economics is concerned with facts and cause-and-effect relationships whereas "normative economics embodies subjective feelings about what ought to be" (McConnell et al., 2018, p. 6). The main focus of the textbook is on positive economics (McConnell et al., 2018). Although green economics is not subjective, it is contested and largely concerned with the normative or what ought to be. Using Max-Neef's (2005) classification, it operates primarily in the fourth domain of what we must do.

The **second textbook** examined was *Essential Economics for Business* (Fifth Edition, published in 2017 by Pearson Education). This textbook was 381 pages in length and was somewhat different from the first. The first textbook was orientated to economics majors whereas this textbook is part of an offshoot of 'pure' economics, economics for business or business economics, which is aimed at commerce students whose major is not economics.

The pattern discerned in this textbook was somewhat different from the first textbook. 'Social justice' did however produce one result. It was located in a section of the textbook discussing social responsibility and profitability (Sloman & Jones, 2017, p. 210). 'Race' produced two results but the word was used as a verb (as in a competition) as opposed to a noun describing a demographic group. 'Gender', on the other hand, produced 18 results. The textbook also had a section which discussed gender inequality (Sloman & Jones, 2017, p. 194). Its orientation to the subject would seem to be very much that of stating what is and utilising a technical economic

concept to explain why gender inequality exists. This explanation primarily utilised the concept of marginal productivity (Sloman & Jones, 2017, p. 194). No structural examination was offered (in terms of what forces are work which causes gender inequality in the first place) but considering the dominant disciplinary logic of economics which is that of examining what is (Max-Neef, 2005), this is not surprising.

‘Environmental’ (in the sense of the natural environment and sustainability as opposed to the purely business or economic environment) was used 63 times which was high considering the low numbers generated by searches using other terms. Environmental sustainability seemed to be engaged with at length; especially considering the relative brevity of the textbook in its entirety. ‘Climate’, as in climate change, climate scientist and even climate refuge, was used 42 times. ‘Green’, as in green energy, green taxes and green technology, was used 25 times. Both ‘climate’ and ‘green’ were used more frequently than had been anticipated.

There were indications that in this particular textbook, there is a not insubstantial movement towards the inclusion of socio-environmental just and sustainable considerations. One section which examined environmental policy was especially revealing. Although indicative of a weak green economy discourse, with an emphasis on security and green growth, it nonetheless contained material which directly addressed issues of, in this instance, environmental sustainability. Quoting a report commissioned by the UK government , it stated that:

“Climate change presents a unique challenge for economics: it is the greatest and widest-ranging market failure ever seen. The economic analysis must therefore be global, deal with long time horizons, have the economics of risk and uncertainty at centre stage, and examine the possibility of major, non-marginal change.” (The Stern Review , as quoted in Sloman & Jones, 2017, p.214)

The reasons for the above movement to include complex and contested reality into economics are not clear but it could be postulated, based on the analysis offered in this study, that the second textbook (not being located within ‘pure economics’ which is formulated as a type of economics for non-economists, is not as rigidly bound and confined by the methodology and rules (Gordon, 2014) of pure economics.

As the field of business studies (broadly defined) is neither hard nor pure (Katzner, 2003), it could be argued that it is therefore more porous hence allowing in subject matter that is not conventionally associated with the discipline of economics.

4.3.6 Conclusion to Case Study 1

This section has shown that although there are relatively rigid disciplinary boundaries, there is potential for economics to gradually include green economy thinking and practice within the discipline. Part of this process will entail differentiating between economics students who are planning to become specialists (either as academics or as practising economists) and those who are studying economics as part of a degree, where the primary focus is not necessarily that of economics but where a basic understanding of economics is seen as a requirement. If the goal is the more widespread and substantive inclusion of green economy thinking and practice in economics, it will potentially require challenging, in a critical yet constructive manner, ideas (such as the invisible hand of the market) which can often lead to a justification of a business as usual approach to thinking about the economy.

4.4 CONCLUSION

This chapter has presented and analysed the data of the study in the form of two extended case studies. This chapter has shown how there are forces at work within and without the two institutional settings (the banks and economics departments in question examined), which not only explain the relative lack of widespread and robust engagement with the green economy, but that the analysis of these factors opens the space for the development of transformative thinking and practice.

One of the key external forces operational in the banking context, which at least partly accounts for the lack of a more widespread adoption of green economy thinking and practice, is the continued demand in the market (by private and business clients) for products and services which lead to environmentally unsustainable and socially unjust outcomes. An internal force influencing economics, and which influences the ability and willingness of practitioners to adopt a green economy framing, is an emphasis on academic success and progression *within* the

confines of often well-established disciplinary logics and boundaries which are far from porous.

It is also worth mentioning that a clear delineation between internal and external forces is not always possible or analytically generative. There is also a need to examine more closely the interaction between internal and external dynamics and forces, such as the connections between logics and patterns in the marketplace and how these influence the behaviour of banking professionals in terms of their adoption, or lack thereof, of green economy thinking and practice. This study has started such a process but further research in this domain is required.

CHAPTER 5: REFLECTION ON FINDINGS AND RECOMMENDATIONS FOR FUTURE RESEARCH

5.1 INTRODUCTION

This chapter reflects on the findings of the research report as a whole. Matters that arose during analysis that were not covered in previous sections will also be addressed – such as reflections on most research participants’ inability to link environmental sustainability and social justice considerations. In terms of findings, the following are central and will constitute the majority of this chapter:

- 1) Engagement with the green economy in banking and economics departments at higher education institutions;
- 2) Exploring dynamics operational in banking and economics with a particular focus on specialisation in the workplace and disciplinarity in higher education;
- 3) Limitations to the transformative role of education – exploring the merits of an approach which is critical of Human Capital Theory (HCT); and
- 4) Thinking (and acting) our way out of the quagmire.

Throughout the chapter, recommendations are made for areas of future research. The last section of this chapter provides an conclusion to the study as a whole.

5.2 A SUCCINCT SUMMARY OF FINDINGS

This study found that the two major banks in question did not engage extensively with the green economy and sometimes adopted a business as usual discourse. Where there were instances of engagement (in terms of conceptualisation and practice), it was found that a weak green economy (Ferguson, 2015), otherwise known as a green growth (Death, 2014), discourse and orientation was most prevalent. Internal forces, such as the tendency to specialise as a professional, as well as external social and economic forces, such as a lack of demand for green products and services, can at least partially explain the interpretation of the green economy in the two banks.

In terms of economics it was found that a strong disciplinary logic prevailed which limits the extent to which economics can engage with socio-environmental justice and sustainability. It was, however, also ascertained that there is the potential for transformation – especially if certain disciplinary boundaries become more porous such as in the case of the sub-discipline of business economics.

With regard to the interaction between the two domains (banking and economics, or more broadly, education and work), it was found that the relationship between the two is indeed complex and far from as simple as some may assume. Developments in one domain do not neatly correspond to and influence developments in the other as the state of affairs is complex. Furthermore, an over-attribution of causal efficacy on the part of education (sustainable or otherwise) has the potential to foreclose on the due consideration of other strategies to transition to a green economy – such as mass democratic mobilisation and activity in favour of an environmentally sustainable and socially just economy (Swilling & Annecke, 2012).

5.3 REFLECTING ON ABSENCE: THE FAILURE TO LINK ENVIRONMENTAL SUSTAINABILITY AND SOCIAL JUSTICE

In the United Nations Environmental Program (UNEP) definition of a green economy, a link between environmental sustainability and social justice is established (UNEP, 2011). The interconnections between social, economic, political and environmental concerns have also been well established in the South African environmental education and research context (Janse van Rensburg, 1994; O'Donoghue, 1993). This study has, however, shown that potentially much more work needs to be done at the banks (and economics departments) in question to link environmental sustainability and social justice in terms of their interpretation of the green economy.

Participants (such as the banking professional at Bank One and economists 1 and 3) tended to focus only on environmental sustainability or to problematise the notion of the two being linked and instead argued that there is potential conflict between environmental sustainability and social justice. Further research in banking is needed to determine how best to challenge and overcome this deeply problematic dualism.

If the green economy is to be included and actualised in industries such as banking and higher education institutions (including but not limited to economics departments), then a very difficult balancing act is necessary. Firstly, there is a need to include the green economy. Secondly, there is a need to systematically, explicitly and more thoroughly, link environmental sustainability and social justice. Finally, a certain degree of consensus needs to be reached that simultaneously allows for rigorous debate and critical engagement which is nonetheless productive and does not lead to a hardening of positions.

5.4 ENGAGEMENT WITH THE GREEN ECONOMY IN BANKING AND ECONOMICS: CONSIDERING CONTEXTUAL DYNAMICS

Although only a selection of banking professionals and economists were involved in this study, it would seem that there is an overall lack of engagement with the green economy in both contexts – or much less of a broad-based and rigorous engagement than is needed considering the high levels of environmental unsustainability and social injustice in the South African context.

It should, however, be recognised that there are also broader dynamics at work outside of, yet which influence and shape, these institutional settings. These dynamics should be engaged with as they play a potentially significant role in terms of how (or whether) the green economy is engaged with – not only at the level of interpretation but also in terms of eventual praxis. Our contextual dynamics are such that we live in a capitalist socio-economic, political and cultural order (which is often fiercely contested yet nonetheless dominant) where the overriding logic and drive is for increased production, economic growth and infinite expansion in a world with finite resources (Nørgård & Xue, 2016).

Like we need to engage critically with broader forces which continue to move our society and economy in unsustainable directions, we need to engage with and seek to understand institutional dynamics and logics which are enabling (often inadvertently – the attribution of intention is dangerous) or supporting this drift into potential catastrophe. By understanding these dynamics with as much analytical rigour as possible, the process of reaching a negotiated consensus and collectively formulating viable responsive courses of action can begin in earnest.

5.5 SPECIALISATION IN THE WORKPLACE AND DISCIPLINARITY IN ECONOMICS

It was found that two logics were operational in banking and in economics.

In the banks examined there was a strong drive towards specialisation. As the banking industry is characterised by an oligopoly structure with four major banks and two to three medium sized banks dominating the industry, the various banks are in many ways similar with one organisation closely following developments in another. To determine whether this drive towards and preference for specialisation in banking, at the professional level at least, is common across all the banks in South Africa requires further research.

The preference for specialisation in the banks examined is to an extent understandable, considering the often specialised needs of clients, the size of the organisations and wide scope of coverage and the complexity of financial services provided – especially in the corporate and investment banking space.

In terms of the green economy, which is by its very nature cross-cutting in its transformative intent, specialisation poses certain challenges. It would seem that material and other rewards are linked to the degree and extent of specialisation (and the ability to consistently utilise this specialisation for very specific purposes) of individual professionals, departments and divisions. If this is indeed the case, then there is potentially very little reason (or time) to engage with transversal issues and opportunities such as those presented by a greater focus on environmental sustainability and social justice.

Another logic operational in the banks meriting discussion is that of the responsibility of senior managers and executives to maximise shareholder value and returns – individuals in senior positions are acutely aware of this responsibility. This, combined with the phenomena of specialisation, could pose a challenge to the incorporation of green economy thinking and practice in banking.

In economics, despite certain positive developments in the direction of transdisciplinarity, there seemed to be a dominance of disciplinarity. During the course of the research, online searches were conducted and the websites of approximately ten university economics departments were examined. Most if not all staff members seemed to be highly specialised in sub-fields (and even niches within these sub-fields) and working within strict disciplinary boundaries in terms of their research. This applied to those economists with an environmental focus in their work too.

What requires further empirical research in the South African context are the ways in which disciplinarity and associated specialisation can inhibit the development of “a shared knowledge base” (Barth et al., 2007, p. 423). This “shared knowledge base” is crucial for addressing complex and cross-cutting matters such as environmental sustainability and social justice. This research report has at the very least indicated that this is an area requiring further attention: understanding needs to be developed in order to open up space for exploring how productive synergies within and between disciplines can take place.

5.6 LIMITATIONS TO THE TRANSFORMATIVE ROLE OF EDUCATION

In Chapter Two of this research report, Human Capital Theory (HCT) was engaged with at length. It was shown, drawing on extensive research in this space, that the link between education and work was far from simple and that at the very least, due caution should be applied when making claims or assumptions regarding the causal relationship between education and other domains.

This is not to say that education is not important (for a variety of reasons which stretch well beyond the confines of the economy and work) or that steps should not be taken to ‘green’ education – whether it be primary school or postgraduate studies at universities. It would seem difficult to imagine that a strong case could be made in opposition to the movement for the inclusion of environmentally sustainable and socially just theory and praxis in education. What a critical engagement with HCT does however highlight is the need to at times, especially when thinking about education, think beyond education. Education may be critical for the transition to a green economy but it is but one of a whole range of intersecting factors which will determine whether progress is made or whether we continue along the current path.

Engagement with economists and banking professionals has illustrated that there are a range of factors, internal and external, which are potentially inhibiting the inclusion of green economy thinking in banking and economics.

5.7 THINKING (AND ACTING) OUR WAY OUT OF THE QUAGMIRE

If education is not the panacea, then the following question arises: where to from here? Clearly the struggle to include a stronger focus on socio-environmental justice and sustainability in economics is immense. At the University of Sydney a battle raged for almost three decades to include heterodox economics² in the undergraduate curriculum (Butler, 2010).

² “As a scientific research field, heterodox economics is concerned with explaining and proposing and advocating changes in the historical process that provides the flow of goods and services required by society to meet the recurring needs and promote the well-being of those who participate in its activities.” (Lee, 2012, p.340). It is also worth noting that heterodox economics is not always concerned with and engaged in outright critique of orthodox economic theories and methodologies but often aims to offer supplementary and/or alternative explanations of economic phenomena and processes.

To include environmental sustainability and social justice thinking and practice in banking is potentially even more challenging considering the overriding rationale, despite the so-called triple bottom line, which can often be a form of corporate green washing (Bowen & Aragon-Correa, 2014), of increased and increasing shareholder returns.

The first step it would seem would be to recognise and understand the complexity of the terrain and the motivation of the actors in the spaces in which we seek to make a positive change. This is necessary but far from sufficient.

The second would be, somewhat counter-intuitively, that a liberation from a mono-causal fixation on the transformative role of education potentially allows for the space to open up for the exploration of other courses of transformative thinking and action. It also allows for the development of a view of education which sees it as a catalyst which can enable, inspire, activate and support other courses of action which aim to transform industries, sub-sectors, sectors or entire economies. If, for instance, a viable course of action is to place democratic pressure as consumers, in the form of mass political mobilisation and sustained action (Winslow, 2005), on banks to transition, then it is unlikely that this would take place if very few people are exposed to environmentally sustainable and socially just thinking and practice during the course of their formal (or other) education.

The third step would be that radical critiques of the status quo are required but that at the same time, a workable consensus needs to be reached to transition from a business as usual to a weak green economy or even a transformational green economy (Ferguson, 2015). It is difficult to think that it is possible (or for that matter desirable) to have infinite economic growth and attendant expansion of consumption in a finite world – especially if only a minority benefit materially. A hardening of positions does not however bode well for the process of generating a consensus. A “strong green economy” (Death, 2014; Ferguson, 2015) is probably not only desirable but needed considering the state of South Africa’s environment *and* society. The reality is that despite the prevalence of a green growth discourse in South Africa, in terms of practice especially, but in terms of thinking as well, it is likely that most workplaces and educational institutions are far removed from even a green growth state of affairs. Further research in this regard is nonetheless required – if we do not more fully understand the situation we are in, there can be uninformed action, with unintended and unforeseen consequences.

Fourthly and finally, the challenges posed by the need for socio-environmental justice and sustainability should be openly, rigourously and systematically engaged with. The opportunities presented by linking the two should also be recognised as the political and other struggles needed to transition to a green economy can only stand to benefit from mass democratic mobilisation and action. If the majority of South Africans who do not benefit from the current status quo (Cock, 2019) can see, and experience, the benefits of a green economy, then this can lay the foundation for a difficult but much needed transition.

5.8 CONCLUSION

This research report has provided an examination of how the green economy is being interpreted in banking. It has also critically examined the role which economics could play in the transition to a socio-environmentally just and sustainable economy. It has illustrated that there are logics operational within and without both spaces that can inhibit the inclusion of green economics. Making use of and engaging with critiques of Human Capital Theory, it has shown that the interaction between the worlds of work and education are complex and far from clear or linear. The concluded argument is the lack of a linear causal relationship between education and work opens the space for engagement in thinking in practice, such as democratic mobilisation in opposition to an unsustainable dispensation, which utilises education, but also moves beyond it.

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ANNEXURES

Annexure 1: Permission Letter Banks

LETTER EXPLAINING RESEARCH AIMS AND REQUESTING PERMISSION TO CONDUCT RESEARCH

The Head

Date:

Institution Name:

RE: PERMISSION TO CONDUCT INTERVIEWS IN YOUR INSTITUTION

This research aims to investigate the relationship between economics curricula taught at universities and the conceptualization and practice of the green economy within banking. Various arguments have been made internationally and nationally that there is an urgent need to transition to a more environmentally sustainable and socially just economy. A major transition of such a cross-cutting nature (often referred to as the transition to a green economy; although it must be noted that this concept is contested) will require all sectors of the economy to be transformed. It has also been argued that education which addresses issues and opportunities of environmental sustainability and social justice will play a central role in such a transition.

A key sector that is not only in and of itself significant but that plays a central role in providing capital for green economy transitions is the financial sector of the economy. Many of the staff and other role players in this sector (especially those at a higher level of authority and responsibility) are educated at universities in the broad field of business studies. During the course of their studies many business students are required to take economics as a subject. If those working in banking are to contribute to a green economy transition in their work one prerequisite will be that they need to be exposed to and familiar with green economy theories and thinking during the course of their studies. There are various factors internal to the bank and external to it, beyond green economy education, which will inhibit or enable those working in banking to contribute to a green economy transition in their field of practice. This research will also explore those enabling or inhibiting factors.

The research aims to contribute to a field that is under researched at present and to generate insights that will be of value not only academically but to the participants, industry and broader society. The research will be of particular use to higher education and workplace based education curriculum designers as it will provide insight into how green economy theory and thinking can be incorporated into current economic curricula.

While your institution's involvement in this study is of importance, it is completely voluntary and, your institution and its participants are under no obligation to participate in the research and may at any time during the research process refuse to continue their participation.

Should the institution consent to participate in this research, I would require your assistance in purposively selecting senior staff who have expert knowledge on economics curricula.

You may recommend and nominate staff that you feel may be best placed to participate based on the objectives of the research.

Staff employed at your institution will partake in one interview of approximately 60 minutes in late 2018/early 2019, which will be audio-taped and transcribed.

I will travel to your offices or a point convenience for this interview and will cover all expenses incurred. I do not intend to interrupt any operational time nor to interfere with the day-to-day running of the institution.

The information and insights you share in the interview will be regarded as confidential and the data will be presented anonymously. However, I will mention the positions of individuals but not the name of the institution they are affiliated with. As such, I cannot guarantee anonymity.

The data collected will be analysed and documented in a research report and it is envisaged that the research findings be used for academic purposes including publication in a journal, presentation at an academic conference and policy advocacy. All research data will be kept securely in a locked cabinet and will be completely destroyed 5 years after completion of the project.

To assist you in reaching a decision, the following documents have been attached:

- (a) A copy of an ethical clearance certificate issued by the University.
- (b) A copy of the research instruments which will be used in the research.

Upon completion of the study in 2018, a summary of the research report and findings will be made available to you electronically should you wish to receive them.

Should you require further information throughout the course of the research, please contact me at 330919@students.wits.ac.za, phone number: 061 811 4087 or Dr Presha Ramsarup presha.ramsarup@wits.ac.za, phone number: 082 906 3170.

Your permission to conduct this study will be greatly appreciated.

Yours sincerely,

Ruan Naude

Master's student at the University of the Witwatersrand, School of Education

Annexure 2: Permission Letter Economics Departments

LETTER EXPLAINING RESEARCH AIMS AND REQUESTING PERMISSION TO CONDUCT RESEARCH

The Head

Date:

Institution Name:

Re: Permission to conduct interviews in your institution

This research aims to investigate the relationship between economics curricula taught at universities and the conceptualization and practice of the green economy within banking. Various arguments have been made internationally and nationally that there is an urgent need to transition to a more environmentally sustainable and socially just economy. A major transition of such a cross-cutting nature (often referred to as the transition to a green economy; although it must be noted that this concept is contested) will require all sectors of the economy to be transformed. It has also been argued that education which addresses issues and opportunities of environmental sustainability and social justice will play a central role in such a transition.

A key sector that is not only in and of itself significant but that plays a central role in providing capital for green economy transitions is the financial sector of the economy. Many of the staff and other role players in this sector (especially those at a higher level of authority and responsibility) are educated at universities in the broad field of business studies. During the course of their studies many business students are required to take economics as a subject. If those working in banking are to contribute to a green economy transition in their work one prerequisite will be that they need to be exposed to and familiar with green economy theories and thinking during the course of their studies. There are various factors internal to the bank and external to it, beyond green economy education, which will inhibit or enable those working in banking to contribute to a green economy transition in their field of practice. This research will also explore those enabling or inhibiting factors.

The research aims to contribute to a field that is under researched at present and to generate insights that will be of value not only academically but to the participants, industry and broader society. The research will be of particular use to higher education and workplace based education curriculum designers as it will provide insight into how green economy theory and thinking can be incorporated into current economic curricula.

While your institution's involvement in this study is of importance, it is completely voluntary and, your institution and its participants are under no obligation to participate in the research and may at any time during the research process refuse to continue their participation.

Should the institution consent to participate in this research, I would require your assistance in purposively selecting senior staff who have expert knowledge on economics curricula.

You may recommend and nominate staff that you feel may be best placed to participate based on the objectives of the research.

Staff employed at your institution will partake in one interview of approximately 60 minutes in late 2018/early 2019, which will be audio-taped and transcribed.

I will travel to your offices or a point of convenience for this interview and will cover all expenses incurred. I do not intend to interrupt any operational time nor to interfere with the day-to-day running of the institution.

The information and insights you share in the interview will be regarded as confidential and the data will be presented anonymously. However, I will mention the positions of individuals but not the name of the institution they are affiliated with. As such, I cannot guarantee anonymity.

The data collected will be analysed and documented in a research report and it is envisaged that the research findings be used for academic purposes including publication in a journal, presentation at an academic conference and policy advocacy. All research data will be kept securely in a locked cabinet and will be completely destroyed 5 years after completion of the project.

To assist you in reaching a decision, the following documents have been attached:

- (a) A copy of an ethical clearance certificate issued by the University.
- (b) A copy of the research instruments which will be used in the research.

Upon completion of the study in 2018, a summary of the research report and findings will be made available to you electronically should you wish to receive them.

Should you require further information throughout the course of the research, please contact me at 330919@students.wits.ac.za, phone number: 061 811 4087 or Dr Presha Ramsarup presha.ramsarup@wits.ac.za, phone number: 082 906 3170.

Your permission to conduct this study will be greatly appreciated.

Yours sincerely,

Ruan Naude

Master's student at the University of the Witwatersrand, School of Education

Annexure 3: Information Sheet Economists

INFORMATION SHEET FOR ECONOMISTS

Title of project: The Interpretation and Practice of the Green Economy Concept within Two Major Banks in South Africa

Researcher: Ruan Naude

My name is Ruan Naude, and I am a master's student at the REAL center, Wits School of Education.

Study purpose: This research aims to investigate the relationship between economics curricula taught at universities and the conceptualization and practice of the green economy within banking. Various arguments have been made internationally and nationally that there is an urgent need to transition to a more environmentally sustainable and socially just economy. A major transition of such a cross-cutting nature (often referred to as the transition to a green economy; although it must be noted that this concept is contested) will require all sectors of the economy to be transformed. It has also been argued that education which addresses issues and opportunities of environmental sustainability and social justice will play a central role in such a transition.

A key sector that is not only in and of itself significant but that plays a central role in providing capital for green economy transitions is the financial sector of the economy. Many of the staff and other role players in this sector (especially those at a higher level of authority and responsibility) are educated at universities in the broad field of business studies. During the course of their studies many business students are required to take economics as a subject. If those working in banking are to contribute to a green economy transition in their work one prerequisite will be that they need to be exposed to and familiar with green economy theories and thinking during the course of their studies. There are various factors internal to the bank and external to it, beyond green economy education, which will inhibit or enable those working in banking to contribute to a green economy transition in their field of practice. This research will also explore those enabling or inhibiting factors.

This research will therefore examine the relationship/s between economics curricula currently being taught at universities and the actual and potential correlations with the interpretation and practice of the green economy within banking. The research aims to contribute to a field that is under researched at present and to generate insights that will be of value not only academically but to the research participants, industry and broader society. The research will be of particular use to higher education and workplace based education curriculum designers as it will provide insight into how green economy theory and thinking can be incorporated into current economic curricula.

Study procedure: As someone who is directly involved in teaching and researching economics' curricula I believe that your knowledge and insight will be especially valuable. I very much hope that you will be willing to undertake this interview.

During the interview, I would also like to be able to record the conversation using a tape recorder. The interview will take approximately 60 minutes.

Participation: Participation in this study is voluntary. If you choose to participate, you have the right to withdraw your consent and stop the interview any time or decline to answer any questions without giving reasons.

Benefits: It is envisaged that the study will generate generative and useful insights on green economics in banking to share with your organization. I furthermore hope that your participation in this study will contribute to national discussions regarding the role finance, and banking specifically, can play in the transition to an economy that is more environmentally sustainable and socially just (often referred to as the green economy). The data collected will be analyzed and documented in a research report that forms part of the requirements for my master's degree in education and work. It is envisaged that the data from this research report will be useful for academic purposes such as a presentation at a conference on researching work and learning and publication in a journal. Another benefit that is envisaged is that this research can contribute to advocacy for a more central role for green economic theory in economics curricula.

Confidentiality and anonymity: The information and insights you choose to share in the interview will be regarded as confidential. I will attempt to ensure the anonymity of participants by using pseudonyms. However, given the nature of the research, it will be important to link perspectives to participants, and therefore participants will be identified by their positions. This means that I cannot guarantee anonymity, and I request that you acknowledge that you are aware of this. All research data will be kept securely in a locked cabinet and will be completely destroyed 5 years after completion of the project.

Risks: There are no anticipated risks that will be encountered by your participation in this study.

Asking questions: If you have any further questions before we start the interview, please feel free to raise them now or as we go along.

Whom to contact: If there is anything you would like to raise after the interview is completed you can reach me electronically at 330919@students.wits.ac.za or telephonically at 061 811 4087. You are also welcome to contact my supervisor, Dr Presha Ramsarup, electronically at presha.ramsarup@wits.ac.za or telephonically at 082 906 3170.

This research report has been reviewed and approved by the Research Ethics Committee at the University of the Witwatersrand School of Education.

Thank you very much for taking the time to read this information sheet.

Annexure 4: Information Sheet Banking Staff

INFORMATION SHEET FOR BANKING STAFF

Title of project: The Interpretation and Practice of the Green Economy Concept within Two Major Banks in South Africa

Researcher: Ruan Naude

My name is Ruan Naude, and I am a master's student at the REAL centre, Wits School of Education.

Study purpose: This research aims to investigate the relationship between economics curricula taught at universities as well as workplace based learning and the conceptualization and practice of the green economy within banking. Various arguments have been made internationally and nationally that there is an urgent need to transition to a more environmentally sustainable and socially just economy. A major transition of such a cross-cutting nature (often referred to as the transition to a green economy; although it must be noted that this concept is contested) will require all sectors of the economy to be transformed. It has also been argued that education which addresses issues and opportunities of environmental sustainability and social justice will play a central role in such a transition.

A key sector that is not only in and of itself significant but that plays a central role in providing capital for green economy transitions is the financial sector of the economy. Many of the staff and other role players in this sector (especially those at a higher level of authority and responsibility) are educated at universities in the broad field of business studies. During the course of their studies many business students are required to take economics as a subject. If those working in banking are to contribute to a green economy transition in their work one prerequisite will be that they need to be exposed to and familiar with green economy theories and thinking during the course of their studies. There are various factors internal to the bank and external to it, beyond green economy education, which will inhibit or enable those working in banking to contribute to a green economy transition in their field of practice. This research will also explore those enabling or inhibiting factors.

This research will therefore examine the relationship/s between economics curricula currently being taught at universities and workplace based learning and the actual and potential correlations with the interpretation and practice of the green economy within banking. The research aims to contribute to a field that is under researched at present and to generate insights that will be of value not only academically but to the participants, industry and broader society. The research will be of particular use to higher education and workplace based education curriculum designers as it will provide insight into how green economy theory and thinking can be incorporated into current economic curricula.

Study procedure: As someone who is directly involved in green economy related

banking activities (such as finance of renewable energy projects) I believe that your knowledge and insight will be especially valuable and I very much hope that you will be willing to undertake this interview. During the interview, I would also like to be able to record the conversation using a tape recorder. The interview will take approximately 60 minutes.

Participation: Participation in this study is voluntary. If you choose to participate, you have the right to withdraw your consent and stop the interview any time or decline to answer any questions without giving reasons.

Benefits: It is envisaged that the study will generate useful insights on green economics in banking to share with your organization. I furthermore hope that your participation in this study will contribute to national discussions regarding the role finance, and banking specifically, can play in the transition to an economy that is more environmentally sustainable and socially just. The data collected will be analysed and documented in a research report that forms part of the requirements for my master's degree in education and work. It is envisaged that the data from this research report will be useful for academic purposes such as a presentation at a conference on researching work and learning and publication in a journal. Another benefit that is envisaged is that this research can contribute to advocacy for a more central role for green economic thinking and practice in banking.

Confidentiality and anonymity: The information and insights you choose to share in the interview will be regarded as confidential. I will attempt to ensure the anonymity of participants by using pseudonyms. However, given the nature of the research, it will be important to link perspectives to participants, and therefore participants will be identified by their positions. This means that I cannot guarantee anonymity, and I request that you acknowledge that you are aware of this. All research data will be kept securely in a locked cabinet and will be completely destroyed 5 years after completion of the project.

Risks: There are no anticipated risks that will be encountered by your participation in this study.

Asking questions: If you have any further questions before we start the interview, please feel free to raise them now or as we go along.

Whom to contact: If there is anything you would like to raise after the interview is completed you can reach me electronically at 330919@students.wits.ac.za or telephonically at 061 811 4087. You are also welcome to contact my supervisor, Dr Presha Ramsarup, electronically at presha.ramsarup@wits.ac.za or telephonically at 082 906 3170.

This research report has been reviewed and approved by the Research Ethics Committee at the University of the Witwatersrand School of Education.

Thank you very much for taking the time to read this information sheet.

Annexure 5: Generic Institutional Consent Form

INSTITUTIONAL CONSENT FORM

The Interpretation and Practice of the Green Economy Concept within Two Major Banks in South Africa (Research Report for the degree of MEd)

It would be greatly appreciated if the institution could please acknowledge receipt of the letter requesting permission for Ruan Naude to conduct research at your institution.

The institution will be acknowledging that:

- Involvement is completely voluntary and nominated participants may choose not to participate or to withdraw their consent at any given time without any negative consequences.
- Interviews with nominated participants will be audio-recorded to ensure the accuracy of the transcription. Consent will be obtained specifically for audio-recording and all data as well as transcripts will be securely kept and destroyed 5 years after completion of the research.
- The information sheet has been read and understood and its contents acknowledged.
- The nominated participant's inputs will not be completely anonymous as positions may be mentioned. Pseudonyms will be used instead of participants' names.
- The nominated participant's individual consent will be obtained before data collection begins.
- The data collection process will not interfere with the day to day running of the institution.
- It is envisaged that the research findings will be used for academic purposes such as journal articles and presentation at conferences. The research findings could also be used for policy debate and/or advocacy.

I, _____, (head of institution, full name) acknowledge the information stated above and grant permission for Ruan Naude to conduct research within _____ (institution's name) in 2018/2019.

Please provide details should you wish to receive an electronic summary of the research findings.

Email address:

Signature:_____. Date:_____.

Annexure 6: Economist Consent Form

CONFIDENTIAL

Title of Project: The Interpretation and Practice of the Green Economy Concept within Two Major Banks in South Africa

I,....., (Name/Pseudonym) hereby confirm that I have read and understood the information provided by Ruan Naude relating to the research being conducted. I have had the opportunity to ask questions and I am satisfied with the responses provided.

By signing this form:

I understand that I have the option of the interview being recorded or not;

I understand that I can withdraw from the research at any time, and that if I choose to do this, any data I have contributed will not be used;

I understand that there is no remuneration for my participation;

I understand that if any of my words are used in reports or presentations they will be attributed to a pseudonym and my real name will not be used;

I understand that my position at the organization I work for may be used, but not the name of the organization, and as such, that complete anonymity cannot be guaranteed by the researcher;

I understand that the data collection process will not interfere with the day to day running of the institution and/or my work;

I understand that the results will be made public;

I understand that I can contact Ruan Naude at any time.

Please circle your chosen response.

I agree to participate in this research.	YES	NO
I agree to have my interview audio recorded.	YES	NO

Participant signature_____Date_____.

Researcher signature_____Date_____.

Please provide details should you wish to receive an electronic summary of the research findings.

Email address:

Researcher email address: 330919@students.wits.ac.za

Annexure 7: Banking Staff Consent Form

CONFIDENTIAL

Title of Project: The Interpretation and Practice of the Green Economy Concept within Two Major Banks in South Africa

I,....., (Name/Pseudonym) hereby confirm that I have read and understood the information provided by Ruan Naude relating to the research being conducted. I have had the opportunity to ask questions and I am satisfied with the responses provided.

By signing this form:

I understand that I have the option of the interview being recorded or not;

I understand that I can withdraw from the research at any time, and that if I choose to do this, any data I have contributed will not be used;

I understand that there is no remuneration for my participation;

I understand that if any of my words are used in reports or presentations they will be attributed to a pseudonym and my real name will not be used;

I understand that my position at the organization I work for may be used, but not the name of the organization, and as such, that complete anonymity cannot be guaranteed by the researcher;

I understand that the data collection process will not interfere with the day to day running of the institution and/or my work;

I understand that the results will be made public;

I understand that I can contact Ruan Naude at any time.

Please circle your chosen response.

I agree to participate in this research.	YES	NO
I agree to have my interview audio recorded.	YES	NO

Participant signature_____Date_____.

Researcher signature_____Date_____.

Please provide details should you wish to receive an electronic summary of the research findings.

Email address:

Researcher email address: 330919@students.wits.ac.za

Annexure 8: Interview Protocol A and B

INTERVIEW PROTOCOL A: BANKING STAFF

Descriptive:

- 1) What is your current position at your organisation and what are some of your key duties and responsibilities?
- 2) Tell me about some of the more recent projects you have been involved in.
- 3) Were any of the above projects what can be termed green? *I.e. providing finance for organisations that are involved in business that has as its core or a strong focus on and commitment to environmental sustainability and social justice.*
- 4) What role have training programmes offered by your organisation played in your ability to successfully contribute to and execute the above projects (2 and 3)? *Please elaborate. What type of professional development opportunities?*
- 5) What role has your formal education played in terms of your ability to successfully contribute to and execute the above projects? Please elaborate.
- 6) What are the key criteria your organisation (and specifically your division/department) uses to determine whether they provide and/or structure finance for other organisations?
- 7) What would you say is the dominant thinking at your organisation, and specifically in corporate and investment banking, regarding the importance of environmental sustainability and social justice considerations (i.e. the green economy)? *Please feel free to be expansive.*
- 8) In your experience would you say there is convergence or divergence (alignment) in terms of discourse and practice in terms of environmental sustainability and social justice considerations in corporate and investment banking? *Please provide examples. If convergence, why? If divergence, why?*

NB: *Emphasise confidentiality and partial anonymity. Organisation name will not be mentioned but occupation will be mentioned for example: project director, major South African bank, corporate and investment banking. Pseudonyms will be used. Also request additional documentation that might be useful. First interview in person and then request follow up telephonic or Zoom interview in case clarification or expansion required.*

Normative:

The below questions aim to obtain insights from Corporate and Investment banking professionals in terms of how their occupations would change if a stronger focus on green economy (ES And SJ) were adopted or if the current positive trends in the industry were to be continued or further developed.

- 1) How would your current duties and responsibilities change (if at all) if there was a stronger focus on environmental sustainability and social justice?
- 2) Would your division invest in different projects with different organisations as compared to now?
- 3) What internal and external forces do you think would shape and determine a shift to more or predominantly environmentally sustainably and socially just business in corporate and investment banking?
- 4) What role would be training offered by your organisation play in this shift?
- 5) What role would formal education play in this shift? *It has been argued that the inclusion of environmental sustainability and social justice considerations at a primary and foundational level in the economics curricula of higher education institutions would contribute greatly to the realisation of green economy ideals. Do you agree? If possible, please provide reasons for your answer.*
- 6) How would the criteria for involvement with other organisations change if a shift towards more environmentally sustainable and socially just practices were included or expanded?
- 7) What would need to change in terms of thinking as regards environmental sustainability and social justice at your organisation in order to transition?

INTERVIEW PROTOCOL B: ECONOMISTS

Economics interview questions

- 1) Is the green economy or alternate conceptualisations of the primary purpose/s of economic activity currently included in economics curricula? Why do you think this is the case?
- 2) Should green economics and/or alternate conceptualisations of the economy be included in economics curricula at a foundational level? If possible, please provide reasons for your answer (i.e. reasons for inclusion/exclusion)
- 3) If green economics related content were to be included: A) at what level? B) To what extent? If possible, please substantiate the reasons for your answers.

- 4) [Dependant on answer above] what enabling conditions would be required for green economics to be included in economics curricula?
- 5) What challenges could (or has arisen) arise if green economics were to be included in economics curricula?
- 6) What opportunities would it present for the discipline of economics? Or put differently what value could it add to the discipline (if any at all)?
- 7) Would the teaching of green economics add value to the economy and society? In what way?
- 8) Should green economics it be an elective or compulsory? Please provide reasons for your answer.
- 9) Could green economics contribute to the transformation of the banking sector? What would the limitations and potentialities of its transformative capability be?