Norwegian University of Life Sciences
Faculty of Landscape and Society
Department of International Environment
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Navigating the Landscapes of 'Green': Policies, Discourses and Institutionalizations of the Green Economy in the Global South

Diskurser og politiske rammeverk i implementeringen av grønn økonomi i det globale sør

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TABLE OF CONTENTS

Part II: Compilation of papers

Annexes

SUMMARY

This thesis discusses policies, discourses and institutionalizations of the green economy in the Global South, and analyzes how the green economy is being implemented in the Global South particularly through the case of the new green revolution in Africa and the Southern Agricultural Growth Corridor of Tanzania (SAGCOT). The objective of the thesis is to examine how the green economy agenda is transferred from the global discursive level to implementation in the Global South and transformed in the process. The aim is to provide insights into the processes and mechanisms that guide green economy implementation in the Global South. The contribution of this study lies within the exploration and examination of how, as a global environmental discourse, the green economy translates to policy implementation and how it transforms in the process towards institutionalization in the Global South.

Since the United Nations Conference on Sustainable Development, Rio+20, in 2012, "greening" economies and growth has been of key importance in international politics. Leading policy actors and businesses increasingly frame the emerging green economy as an opportunity to realize a triple-bottom line comprising people, planet and profit. A two-fold trend seems to have emerged in the global green shift. In the Global North, the green economy usually means market-based solutions and technological innovation to make energy sectors more environmentally sustainable. By contrast, in the Global South, green economy implementations often imply transformed and modernized management or utilization of – or control over – natural resources, often under schemes that are driven from abroad. While there is a growing body of research on various implementations and outcomes of the green economy, particularly technological innovations and market-based solutions, less attention has been paid to policy implications and governance aspects. This is especially the case for the Global South. For this reason, the aim of this study is to examine and discuss the processes and discursive powers that influence these trends.

I apply an overall political ecology framework to understand how a global environmental discourse is translated into policies concerning the environment and natural resources. I explore how these policies are implemented in a developing country, on the basis of discursive powers and power structures. I use an overall discourse approach, especially the concepts of discourse institutionalization and governmentality, to explain how policies are formed and implemented in practice. Finally, I employ the concept of institutional bricolage to explain how the green economy has been adopted and reshaped in green economy institutionalization in the Global South. These theoretical approaches are framed in an overall critical realist epistemology. The research for this thesis has been undertaken by using a qualitative research design, and the data collection methods consisted particularly of qualitative interviews, document analysis, event ethnography, and discourse analysis.

Part II of the thesis comprises three individual papers that all contribute to answering the research questions and fulfilling the study objectives. The papers discuss the implementation of the green economy in the Global South in different ways. However,

common to all the three papers is the examination of how actors find new ways of opportunistically engaging with the green economy as an agenda and a discourse. All three papers explore a certain "spatial fix" element of green economy implementation in the Global South. Furthermore, they all explore some level of discourse institutionalization or influence, and draw on how discourses, informed by narratives, drive the green economy. Finally, the papers all show how a certain shift in management of natural resources is being formed by a modernization discourse under the implementation of the green economy in the Global South.

This thesis extends existing research in three main ways. First, it demonstrates how discursive drivers informed by narratives influence green economy policies and agendas. Second, it examines how the green economy and the new green revolution for Africa have merged. Third, and finally, it empirically explores one example of a green economy implementation in the Global South, namely the Southern Agricultural Growth Corridor of Tanzania (SAGCOT).

Based on the findings from this research, I argue that there is reason to claim that so far the green economy has not succeeded in fulfilling its ambitious targets, but rather it has led to two distinct processes when implemented in the Global South. One process is "grabbing green" and greenwashing due to the need for "spatial fixes" caused by dynamics inherent to capitalism. The other process is modernization of natural resource management, which may lead to transformed control over the use of natural resources, such as land, or transformation of agricultural practices.

SAMMENDRAG

Denne avhandlingen diskuterer grønn økonomi som et globalt politisk og diskursivt rammeverk som for alvor fikk fotfeste på den internasjonale dagsordenen etter FN-toppmøtet i Rio i 2012 (Rio+20). Målet med denne studien er å undersøke og diskutere prosessen hvor grønn økonomi går fra å være en miljøstyringsdiskurs og et politisk rammeverk på globalt plan, til å bli implementert i det globale Sør gjennom ulike initiativer og miljøpolitiske retningslinjer. Studien bidrar med kunnskap om de prosessene, mekanismene og aktørene som styrer og påvirker implementeringen av grønn økonomi i det globale Sør.

Grønn økonomi og vekst har vært sentralt på den internasjonale dagsordenen og for nasjonale regjeringer verden over siden Rio+20-toppmøtet. Men hvordan en grønn økonomi skal implementeres i praksis, er ikke like tydelig. Grovt sett kan vi skille mellom to ulike tilnærminger til implementering av grønn økonomi; i det globale Nord skjer denne oftest via markedsbaserte løsninger på klima- og miljøproblemer, samt en urokkelig tro på at teknologisk innovasjon skal løse utfordringene verden står ovenfor. I det globale Sør, derimot, ser grønn økonomi ut til å ofte innebære endringer og modernisering i forvaltningen av naturressurser, samt i hvordan disse utnyttes og kontrolleres i de såkalt grønne sektorene. Slik styring over naturressurser forekommer typisk i ulike «grønne» initiativer som er drevet av eksterne aktører, ofte via multinasjonale selskaper og privat utenlandsk sektor. Vi ser videre at ledende aktører innen beslutningstaking og næringsliv i økende grad benytter den sterkt fremvoksende grønne økonomien for å støtte oppunder og rettferdiggjøre sine egne ambisjoner, som ofte kan være relativt perifere fra den grønne økonomiens uttalte mål om bærekraftig utvikling, grønn vekst og fattigdomsreduksjon.

Teknologiske og økonomiske aspekter ved den grønne økonomien er bredt diskutert i eksisterende forskning, men politiske og institusjonelle aspekter ved innføringen av grønn økonomi, særlig i utviklingsland, har ikke blitt viet like mye oppmerksomhet. Denne studien har derfor som mål å diskutere implikasjonene av, samt aktørene og de diskursive kreftene, som påvirker og styrer implementering av grønn økonomi. Studien tar utgangspunkt i politisk økologi for å forstå hvordan en global, hegemonisk miljøstyringsdiskurs overføres til politiske rammeverk innen naturressursforvaltning på nasjonalt og lokalt plan. Særlig er det interessant og aktuelt å se på dette via ulike maktperspektiver, samt *hvordan* disse politiske rammeverkene implementeres i det globale Sør. Videre er denne studien underordnet en diskursiv innramming, primært ved å benytte konseptene diskursinstitusjonalisering og 'governmentality' ('styringsmentalitet') for å forklare hvordan politiske rammeverk formes og blir implementert. Disse teoretiske tilnærmingene er forankret i den epistemologiske vitenskapsfilosofien kritisk realisme. Sist, men ikke minst, har jeg anvendt det teoretiske konseptet institusjonell 'bricolage' for å forklare hvordan grønn økonomi har blitt tatt i bruk og omformulert i institusjonaliseringen av grønn politikk og «grønne» initiativer i det globale Sør.

Forskningen som danner det empiriske grunnlaget for denne avhandlingen, har blitt gjennomført under en kvalitativ metodologisk tilnærming, hvor datainnsamling hovedsakelig har bestått av dybdeintervjuer, dokumentanalyse, konferanseetnografi og diskursanalyse. Avhandlingen består av tre individuelle vitenskapelige artikler som alle bidrar til å svare på de forskningsspørsmålene studien stiller.

De tre artiklene diskuterer implementeringen av grønn økonomi i det globale Sør på forskjellige måter. Felles for dem er likevel en redegjørelse for hvordan aktører finner nye måter å utnytte den grønne økonomien både som agenda og diskurs. Artiklene diskuterer i tillegg hvordan implementering av grønn økonomi bærer preg av kapitalismens behov for å ekspandere ('spatial fix'). Videre analyserer de hvordan diskurser påvirker politikk, strategier, retningslinjer og rammeverk, særlig hvordan narrativer og diskurser *driver* grønn økonomi. Endelig, og sentralt for hele avhandlingen, illustrerer alle tre artiklene hvordan inngripen i, og modernisering av, naturressursforvaltning er grunnleggende for hvordan grønn økonomi implementeres i det globale Sør. Avhandlingen utfyller eksisterende forskning på hovedsakelig tre måter. For det første demonstrerer den hvordan diskursive krefter og narrativer påvirker politiske strategier og retningslinjer for grønn økonomi. For det andre utforsker den hvordan den grønne økonomien og den nye, grønne revolusjonen i Afrika har blitt sammenblandet under felles mål og retorikk. For det tredje utforsker den et empirisk eksempel av hvordan grønn økonomi implementeres i det globale sør, gjennom Tanzanias jordbrukskorridor The Southern Agricultural Growth Corridor of Tanzania (SAGCOT).

Denne avhandlingen argumenterer for at ulike initiativer under grønn økonomi er dypt formet av utvalgte elementer som politiske aktører velger å inkludere eller ekskludere i sine tilnærminger og politiske rammeverk. På bakgrunn av funnene i denne studien, er det grunn til å tro at grønn økonomi så langt ikke har lyktes i å innfri sine ambisiøse mål, men snarere ført til to distinkte prosesser når den har blitt implementert i det globale Sør. Disse er, for det første, en «kapring» av den grønne diskursen og «grønnvasking» som en konsekvens av interne motsetninger og dynamikker i det kapitalistiske systemet, og for det andre, modernisering av naturressursforvaltning, som kan føre til endret kontroll over tilgang til og bruken av naturressurser.

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Jill Tove Buseth

Hamar, 12.06.19

ABBREVIATIONS

ACT	–	Agriculture Council of Tanzania
AfDB	–	African Development Bank
AGG	–	Agriculture Green Growth
AGRA	–	Alliance for a Green Revolution in Africa
ASDP	–	Agriculture Sector Development Programme
AU	–	African Union
BAGC	–	Beira Agricultural Growth Corridor
BI	–	Norwegian Business School
BRN	–	Big Results Now
CAADP	–	Comprehensive Africa Agriculture Development Programme
CEO	–	chief executive officer
CGIAR	–	Consultative Group of International Agriculture Research
CI	-	critical institutionalism
COSTECH	–	Tanzania Commission for Science and Technology
CSA	–	climate-smart agriculture
DFI	–	development finance institution
DSM	–	Dar es Salaam
DTIE	–	UNEP Division of Technology, Industry and Economics
EfD	–	Environment for Development Initiative
FAO	–	Food and Agriculture Organization of the United Nations
FSDT	–	Financial Sector Deepening Trust
FUNBAM	–	Environmental Bank Foundation
GDP	–	gross domestic product
GEC	–	Green Economy Coalition
GEI	–	Green Economy Initiative
GGGF/ 3GF	–	Global Green Growth Forum
GGGI	–	Global Green Growth Institute
GGGW	-	Global Green Growth Week

GGKP	–	Green Growth Knowledge Platform
IIED	–	International Institute for Environment and Development
ILO	–	International Labor Organization
IPCC	–	Intergovernmental Panel on Climate Change
HDI	–	Human Development Index
KPL	–	Kilombero Plantations Limited
ODA	–	official development assistance
OECD	–	Organization of Economic Cooperation and Development
MI	-	mainstream institutionalism
MVIWATA	–	Mtandao wa Vikundi vya Wakulima Tanzania (National Network of Farmers' Groups in Tanzania)
NEPAD	–	New Partnership for Africa's Development
NESH	–	National Committee for Research Ethics in the Social Sciences and the Humanities
NGO	-	non-governmental organization
NSD	–	Norwegian Centre for Research Data
PAGE	–	Partnership for Action on Green Economy
PASS	–	Private Agricultural Sector Support
PIDA	–	AU's Programme for Infrastructure Development in Africa
PPP	–	public–private partnership
REDD+	–	Reducing Emissions from Deforestation and Forest Degradation
SAGCOT	–	Southern Agricultural Growth Corridor of Tanzania
SAGCOT CTF	–	The SAGCOT Catalytic Trust Fund
SAGCOT GRG	–	SAGCOT Green Reference Group
SAP	–	structural adjustment program
SSA	–	Sub-Saharan Africa
SUA	–	Sokoine University of Agriculture
TAP	–	Tanzania Agriculture Partnership

TIC	–	Tanzania Investment Centre
TNBC	–	Tanzania National Business Council
UN	–	United Nations
UNDP	–	United Nations Development Programme
UNECA	–	United Nations Economic Commission for Africa
UNEP	–	United Nations Environment Programme
URT	–	United Republic of Tanzania
USAID	–	United States Agency for International Development
WCED	–	World Commission on Environment and Development
WEF	–	World Economic Forum

LIST OF FIGURES

1. INTRODUCTION

This thesis discusses discourses, policies and institutionalizations of the green economy, and explores the processes and mechanisms that guide green economy implementation in the Global South. The study particularly focuses on the new green revolution in Africa as an agenda under the overall green economy. It is a case study of green economy implementation in the Global South, and includes an embedded case study of the Southern Agricultural Growth Corridor of Tanzania (SAGCOT) in order to shed light on these processes. Since 2012, greening economies and growth has been key in international policies and environmental governance. The idea of a green economy resulted from the combination of the global financial shocks of 2008 and the growing awareness of the climate crisis, mainly because of the 2007 publication of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) (IPCC, 2007). The green economy was introduced as a direct response to what has been coined "the triple F crisis" of food, fuel and finance that occurred in the years 2007–2009. For many, this presented a "unique moment in history in which major environmental and economic challenges could be tackled simultaneously" (Tienhaara, 2014, p. 1). Global actors within policymaking, such as the United Nations Environment Program (UNEP), the Organization for Economic Cooperation and Development (OECD) and the World Bank (WB), began working on strategies to solve, or redirect, the threefold interlinked global crises of the economy, the environment, and persisting global poverty. The result of these efforts were materialized at the United Nations Conference on Sustainable Development, Rio+20, in 2012, where the aim was to renew the concept of sustainable development. One of the main outcomes of the conference was the conceptualization of the "green economy" (UNEP, 2011), also coined "green growth" (OECD, 2009).[1]

The green economy is a concept, a policy agenda and a framework – or rather several, sometimes contrasting, policy frameworks – and a global discourse, and it encompasses a wide range of sectors and contents. Achieving a green economy, as defined by UNEP (2011, p. 16), means shifting to a global economy "that results in improved human well-being and

[1] The green economy and green growth mainly refer to the same policies and ideas. However, the difference between them, and similar 'green' concepts, are elaborated on in Section 2.1.3.

social equity, while significantly reducing environmental risks and ecological scarcities." The key aim for a transition to a green economy is "to enable economic growth and investment, while increasing environmental quality and social inclusiveness" (UNEP, 2011, p. 16). In sum, the aim is for the green economy to be (1) a framework for climate mitigation, (2) a new green driver for economic growth, and (3) a tool for poverty alleviation. Thus, it is quite ambitious and substantial, both as a concept and agenda. This combination, also coined the "triple bottom line," consists of three pillars—people, planet and profit—and is recognizable from the sustainable development school as conceptualized by the United Nations World Commission on Environment and Development (WCED), also known as the Brundtland Commission (WCED, 1987). Although both approaches (i.e., sustainable development and the green economy) are intended to ensure economic growth in environmentally and socially sustainable ways, the strong focus on greening economies has renewed the agenda, and is under the green economy presented and interpreted as an *opportunity* rather than a restraint, especially within the business sector. The main message of the green economy is that economic growth should continue, not halt, in adapting economic systems to become more environmentally viable. This has made the green economy far-reaching and popular as a concept, and can to a certain extent explain why, as I argue in this thesis, it has become a global hegemonic discourse within environmental governance.

1.1. Context and background

The green economy is a complex construct involving a wide range of actors, policies, concepts, and approaches. Many different actors have different, often contrasting, green economy agendas. However, these commonly include varying ideas about how to make our economic system, global production and consumption structures, and existing industries more environmentally sustainable. Policy and scholarly debates have mostly been concerned with investment, innovation and technological solutions to environmental challenges and achieving sustainable development. However, the attempt to integrate economic, environmental and social concerns is ambitious, and will require new forms of governance. Indeed, as Scoones, Newell, and Leach (2015, p. 1) argue, the green transformation is "deeply political." This is usually not discussed to the same extent.

The ways in which the green economy manifests in practice are many and varied, but primarily the emphasis is on market-based and technological solutions to environmental challenges. In the global North, the green economy usually means investments, technology and innovation in renewable energies, as well as in making fossil fuels more energy- and cost-efficient. Moreover, heavily inspired by eco-modernization (Mol & Spaargaren, 2000), green taxes and incentives are important in what is often coined "the green shift" in industrialized countries (Scoones et al., 2015).

In the Global South, however, the green economy often implies environmental protection along with new forms of management and modernization of natural resource sectors ("green sectors") such as forestry, freshwater, fisheries, agriculture, and pastoralism (Bailey & Caprotti, 2014; Brown, Cloke, Gent, & Hill, 2014; 2015; UNEP, 2011, World Bank, 2019). This has led to the establishment of new standards for environmental conservation, management and policy, and new forms of capital accumulation (Büscher & Fletcher, 2015). Mounting evidence from research demonstrates various outcomes of such schemes, including REDD+ (Reducing Emissions from Deforestation and Forest Degradation) (e.g., Asiyanbi, 2016; Asiyanbi, Ogar, & Akintoye, 2019; Lund, Sungusia, Mabele, & Scheba, 2017; Svarstad & Benjaminsen, 2017), carbon forests (Leach & Scoones, 2015; Lyons & Westoby, 2014), climate-smart agriculture and the new green revolution for Africa (Bergius, Benjaminsen, & Widgren, 2018; Cavanagh, Chemarum, Vedeld, & Petursson, 2017; Newell and Taylor, 2018; Westengen, Nyangen, Chibamba, Guillen-Royo, & Banik, 2017), biofuel production (Boamah, 2014; Matondi, Havnevik, & Beyene, 2011), nature conservation (Büscher & Fletcher, 2015), water management (Bek, Nel, & Binns, 2017), and ecotourism (Fletcher & Neves, 2012; Gardner, 2012; Rai, Benjaminsen, Krishnan, & Madegowda, 2019). Many of these studies criticize 'green' schemes and their outcomes as implications and negative consequences of the green economy. Such criticism, which often comes from political ecologists, often builds on well-established research on themes such as "neoliberalization of nature" (Arsel & Büscher, 2012; Bigger et al., 2018; Castree, 2008; Heynen, Prudham, McCarthy, & Robbins, 2007; Igoe & Brockington, 2007).

Simultaneously, there has been an increase in foreign control over farmland and natural resources, particularly in Africa (Anseeuw et al., 2012; Carmody, 2016; Cotula, 2013; Kaag &

Zoomers, 2014). There is a growing body of research pointing to the consequences of large-scale land acquisitions and privatization of agricultural investments in Africa, which are taking place in the "name of green" (Byiers & Rampa, 2013; Evers, Seagle, & Krijtenburg, 2013; Nhamo & Chekwoti, 2014), including the SAGCOT initiative in Tanzania (Bergius et al., 2018; Coulson, 2015; Sulle, 2015, 2016). This trend represents an urge to make money from or to control Africa's natural resources and farmland, which recently has been combined with the idea of the green economy and its implementation. A wide range of initiatives within natural resource management and policy are being rolled out under green economy banners across the Global South (Brown et al., 2014; Büscher & Fletcher, 2015; Cavanagh & Benjaminsen, 2017; Death, 2015; Ehresman & Okereke, 2015).

Unlike most of its neighboring countries, Tanzania does not have an explicit green economy strategy. Furthermore, Tanzania is not a partner country of the United Nations (UN) initiated Partnership for Action on Green Economy (PAGE), whose mandate is to support countries in the implementation of their variegated green transitions.[2] In 2016, Tanzania was ranked number 53 out of 80 countries on the Global Green Economy Index (Tamanini, 2016), and although the present study is not concerned with such rankings or measurements, Tanzania may not be the first country that comes to mind when discussing the green economy in Africa.[3] However, in recent years green economy initiatives have been implemented on a broad scale also in Tanzania, predominantly through schemes that seek to catalyze green growth, measures for environmental conservation, biofuel production, and commodification of carbon. The most prominent examples include projects under the REDD+ initiative. However, the focus of this study is the hybridization of the green economy and the new green revolution for Africa in Tanzania's green economy.

Tanzania is one of the top countries in Africa targeted by foreign land investors (Anseeuw et al., 2012; Sulle, 2015). This is driven by both push and pull factors, namely the global rush for farmland and the government's drive towards modernizing the agriculture sector. Such large-scale agricultural investments have increasingly been linked to the idea of green

[2] Only five African countries are PAGE partners: Senegal, Ghana, Burkina Faso, Mauritius, and South Africa.
[3] Of Tanzania's neighboring countries, Zambia had the highest ranking among African countries in total, at number 8, mainly due to its use of renewable energies. Rwanda was ranked number 23 in the GGEI in 2016, while Kenya was ranked number 31.

growth, particularly through the public–private partnership (PPP) of the Southern Agricultural Growth Corridor of Tanzania (SAGCOT). SAGCOT follows an approach that has been coined Agriculture Green Growth (AGG), which aims to gather investors, agribusiness partners, government agencies, and donors on a common platform to work coherently and collectively towards commercializing the agriculture sector in the country's Southern Highlands area to "boost" economic growth and alleviate rural poverty, while ensuring environmental sustainability. The policy document known as *The SAGCOT Greenprint* (hereafter referred to as the Greenprint*)* aims to "ensure that development in the Corridor is environmentally sustainable, socially equitable, and economically feasible" (SAGCOT, 2012, p. ii). Furthermore, according to SAGCOT, "While [agriculture green growth] incorporates traditional environmental management tools . . ., its focus is on identifying and catalyzing new opportunities in agricultural production, technical and institutional infrastructure, and conservation and livelihood activities for sustainable economic growth" (SAGCOT, 2013, p. 4). Thus, SAGCOT's statements and proclaimed goals clearly echo the green economy agenda, and make a very interesting case for researching green economy implementation in the Global South.

It is important to look at green schemes as outcomes of the green economy in order to understand how the green economy manifests in the Global South, but there is a gap in research on the organization of the political and discursive *drivers* behind such green economy implementations. Scoones et al. (2015) stress that in general, there has been a lack of attention to the politics that are driving green transformation, especially to institutional change and policy. Moreover, Newell (2015, p. 69) argues that both policy debates and academic research have focused more on the "governance of transitions than the politics of transformation." Often, there is a lack of attention to political and institutional implications, as well as issues of power, social and environmental justice (Brockington & Ponte, 2015; Newell & Mulvaney, 2013; Scoones et al., 2015), and drivers behind the green economy. Caprotti and Bailey (2014, p. 2) argue that the starting point for research on the green economy should be the "unevenness in the economic and political power relations" that shapes green economy politics in practice. Furthermore, Asiyanbi (2015) argues that a growing body of work on the "capitalocene" and "neoliberal natures" has failed to make

enough effort to assess how discourses of the green shift are being translated into realities on the ground. Hence, it is necessary to focus more attention on how the green economy is operationalized. It is therefore important to analyze the green economy not only as actual implementations, but also from within, by looking at power and discursive drivers. This implies a need for an understanding of how the green economy manifests through global discourses via policies down to implementation at national and local levels.

In order to address some of the knowledge gaps mentioned above, in this study I aim to explore discursive drivers that inform green economy agendas, implementations and institutionalizations in the Global South. I seek to contribute to theoretical, conceptual and discursive research on the green economy. According to Bailey and Caprotti (2014), there is a need to investigate both *theoretical* and *empirical* domains of the green economy. They argue that only by building on several theoretical and conceptual approaches can it be feasible to understand the concept of the green economy fully, as well as to propose future recommendations. Likewise, Svarstad, Benjaminsen, and Overaa (2018, p. 359) argue that political ecology should continue to "uncover exercises of discursive power by elites as well as ways in which dominant discourses are modified, adapted and resisted." This constituted both a motivation and rationale for carrying out this study.

1.2. Objectives of the study

The main objective of this thesis is to examine how the concept of the green economy is transferred from global discursive level to implementation in the Global South. I aim to contribute to research on the green economy under an overall discursive framing, as well as by empirically exploring how green economy policies are transformed in the process towards implementation. Accordingly, the aim of the study is to provide insights into the discursive and political processes and mechanisms that guide green economy implementation in the Global South.

The study is particularly grounded within a theoretical framework following Dryzek's (2013) notion of environmental discourses and Hajer's concepts of discourse institutionalization and discourse coalitions (Hajer, 1993, 1995). Moreover, I draw on

Cleaver's (2012) concept of institutional bricolage to explain how the green economy, both as a policy and a discourse, is transformed and reshaped in its implementation and institutionalization stages, based on power, narratives, and how certain elements of the agenda are selected to justify the implementation of various green economy schemes in a "piece-and-patch together" (bricolage) process. Moreover, an overall governmentality approach (Foucault, 1991) is used to understand how environmental discourses translate into policies and institutions.

In order to address the overall objective of this study, I explore three interlinked research questions with subquestions. As the main objective of the thesis is concerned with understanding how the concept of green economy moves from global discursive level to implementation in the Global South, the research questions reflect the transition from macro level (global discourses, concepts and policy agendas), via a meso level (policy frameworks and agendas in the new green revolution for Africa) to micro level (implementation and institutionalization of the SAGCOT).[4] The three papers on which this thesis is based each contribute to answering the research questions, as follows:

RQ 1) How is the green economy organized conceptually and discursively, and how is the green economy agenda transferred to policy strategies and practice in the Global South?

i) How do its main proponents understand and present the green economy concept and agenda?
ii) How can the discursive landscape of the green economy be categorized and organized?
iii) How do green economy discourses influence policy agendas and frameworks in the Global South?

All three papers deal with this research question, as the institutionalization of the green economy discourse is key to the main objective of the thesis. However, the research question

[4] In this thesis, "macro level" refers to the thematically broad and discursive level of the green economy, "meso level" refers to a thematically narrower area under the green economy (the new, green revolution for Africa), which also is situated at a lower, regional level, geographically, and "micro level" (the lowest level) refers to the embedded case study done at state level (SAGCOT). Therefore, in this thesis, "micro level" is not the local or rural level in Tanzania, as the research conducted for this thesis did not involve consideration of any levels "below" the SAGCOT institutionalization.

is primarily answered in **Paper 3**, which examines how the main green economy discourses (green growth and green transitions) are informed by narratives on their way to policy implementation in the Global South. The paper discusses how a neo-Malthusian narrative of resource degradation influences green economy agendas when implemented in resource-rich developing countries, and changes the way the green economy is narrated and implemented in these parts of the world to a discourse of modernization of natural resource management. This is an example of how green economy discourses transfer to policy and practice in the Global South. Research Question 1 is furthermore answered in **Paper 1** and **Paper 2**, both of which shed light on how the green economy is organized conceptually and discursively, and how this transfers to practice.

RQ 2) How is the new green revolution for Africa understood as part of the green economy in the Global South, and how does this hybridization manifest in practice?

i) How and why do the green economy and the new green revolution for Africa merge?
ii) What are the outcomes of this hybridization?

This research question is primarily answered in **Paper 2**, which demonstrates the bases on which the green economy and the new green revolution have merged, and the drivers, motives and aims behind this hybridization. Together with the co-author of this paper, I use the case of the new green revolution to discuss how a certain revitalized modernization narrative has informed and driven environment and development policies in Africa since the start of the triple F crisis. The findings presented in this paper demonstrate how the new green revolution for Africa is branded as a "triply" green revolution that seeks to include environmental concerns, as well as how the triple F crisis opened up for new "fixes" and interpretations of the green economy and the new green revolution. Research Question 2 is also answered in **Paper 1.**

RQ3) How does the Southern Agricultural Growth Corridor of Tanzania (SAGCOT) serve as an example of green economy in the Global South?

i) What were the motives and aims behind SAGCOT, and who were the main proponents and drivers in the policy formation and implementation of the initiative?

ii) How has SAGCOT been framed under the green economy?

iii) In which ways is SAGCOT a good example of green economy in the Global South?

The research question is primarily answered in **Paper 1**, which looks into the initiation and formation of the SAGCOT initiative in Tanzania, and examines the drivers, motives, actors, and processes that led to the establishment of the initiative. In this paper, I examine SAGCOT from a green economy perspective, and particularly how SAGCOT has been branded as green growth. I argue that the green economy discourse influenced the formation of new green agricultural policies that seek to target all three pillars of a green economy. The paper shows how the green discourse was "grabbed" in the formation of SAGCOT, as well as how SAGCOT was subsequently "greenwashed" in order to fit with the green agenda. I argue that SAGCOT is a good example of how a green economy appears in practice in the Global South, but that the initiative hardly corresponds to the ambitious green economy aims as held by UNEP (2011), for example.

1.3. Motivations, rationale and limitations

While there is a mounting body of literature on green economy implementations and outcomes in various local level contexts in the Global South, my aim is to contribute to research on the conceptual and discursive organization, framing and drivers behind the green economy. While concerns have been raised about possible impacts the green economy might have at national level and at particular local levels in the Global South, I do not aim to point to outcomes, implications, or limitations of the green economy. Rather, I examine and discuss how the green economy is organized conceptually and discursively, and seek to demonstrate how these concepts and discourses are institutionalized. Moreover, this study contributes to an understanding of how the green economy is being interpreted, transformed and shaped in the process towards policy implementation.

Since the concept of the green economy is very wide, it is necessary to explain how I have applied it in this thesis. It would have been beyond the scope of my research to investigate fully the green economy as a concept, discourse or policy agenda, or to discuss how it transfers to practice in all settings. First, I concentrate on the green economy in the Global South in general, and Africa in particular, through the case of the new green revolution in Africa. I have not researched renewable energy transitions, innovations, fiscal instruments, green industries, or climate measures per se – of which there are indeed many current African examples. Rather, I have conducted an embedded case study of green economy implementation in Tanzania through the case of SAGCOT. As mentioned above, the research questions and papers reflect my aim to contribute to research on the ways in which the green economy travels and transforms across levels. This is partially inspired by Bailey and Caprotti's argument that an "obvious starting point for probing the green economy is to examine its organization at the international, national, regional and local levels" (Bailey & Caprotti, 2014, p. 1799). Scaling up to a macro-level perspective is therefore beneficial to the overall broader understanding of the green economy, since it has not yet sufficiently been researched theoretically and conceptually. Most researchers in development studies focus on local level cases, and therefore my thesis is also a contribution to a macro-level understanding of a global environment and development concept and agenda, and the workings of the implementation of such. Accordingly, the purpose of the thesis is not to provide a full picture of how a green economy implementation would appear in the Global South, but merely to provide insights into the roles of actors, the motives and the power dynamics at play in the global green shift.

1.4. Structure of the thesis

The thesis comprises three scientific papers that respond to the research questions enumerated above. Two of these papers are published, and the third has been revised and resubmitted after peer review. The papers are included in full in the second part of this thesis. The first part of the thesis comprises seven chapters. **Chapter 1** serves as an introduction to the thesis. Following this, **Chapter 2** describes the contextual background

and field study context of my research. **Chapter 3** discusses the conceptual and theoretical frameworks within which the thesis is grounded. Thereafter, **Chapter 4** provides a thorough presentation of the methodological approach for the study. Finally, **Chapter 5** comprises a short presentation of the three papers, and **Chapter 6** provides a synthesis of my findings, a discussion, and some concluding remarks.

2. CONTEXTUAL BACKGROUND

This chapter provides the relevant background for the questions addressed in this thesis. I first conceptualize the green economy and its origins, and then examine various ways of organizing the green economy, both conceptually and discursively, as well as by its varied policy agendas. In addition, I outline and discuss how the green economy and the new green revolution for Africa have been merged, as this is the case of green economy implementation in the Global South I have examined in particular. I therefore also include a section on the first green revolution and the following new green revolution in Africa. As I have done an embedded case study of the SAGCOT initiative, I end the chapter by providing an introduction to Tanzania, its agriculture sector and SAGCOT in particular.

2.1 Conceptualizing the green economy

The contemporary green economy builds on decades of environmental governance and sustainability thinking. In this section, I present an introduction to the roots of the green economy, as well as the organization of the green economy in the post-Rio+20 context.

2.1.1 The roots: from limits to growth to green growth

In 1962, Rachel Carson published the book *Silent Spring*, documenting the immense environmental effects pesticides had on birds and other fauna (Carson, 1962). The book sparked a wave of environmental awareness in the USA, and has been regarded as a first contribution to the fields of environmental justice and sustainability thinking. A few years later, a significant renewed contribution to Malthusian ideas (Malthus, 1998 [1798]) was published by Paul Ehrlich in his book *The Population Bomb* (Ehrlich, 1968). Ehrlich warned about mass starvations and major social upheavals if action was not taken to curb the global population growth. Four years later, the Club of Rome followed these ideas in the report *The Limits to Growth* (Meadows, Meadows, Randers, & Behrens, 1972), in which it discussed the limited capacity of the planet with respect to population growth and unsustainable use of the world's resources. The Club of Rome's main argument, shown in graphical terms, was

that if humanity continued on its current path, a global disaster would strike by the end of the century. The report led to intensified debates on the unsustainability of business-as-usual, and reported more broadly on production systems and environmental crises. Critics labeled the report "Malthus with a computer" (Freeman, 1973), partly because the Club of Rome's assumptions were not scientifically substantiated. However, unlike Malthus, the *Limits to Growth* report focused more on the problem of destruction of natural resources caused by population growth than food shortages and starvation caused by population growth, hence it was coined neo-Malthusianism.

The term "sustainable development" was in use already before the 1980s, as part of the terminology in literature discussing environmental issues in the Global South. The meaning of the term changed gradually during the 1980s, and in 1983, the Secretary-General of the United Nations appointed the World Commission on Environment and Development (WCED), to be led by Norway's Prime Minister Gro Harlem Brundtland. The commission's mandate was to "chair an inquiry into interrelated global problems of environment and development" (Dryzek, 2013, p. 150). The Brundtland Commission duly published its report on sustainable development, titled *Our Common Future*, in 1987 (WCED, 1987). Thorough analyses and recommendations within the fields of economy, food, population, energy, and manufacturing combined a number of issues that until then had not been analyzed together, and particularly not across generational scales. The Brundtland Report held that we should aim for a development that is environmentally sustainable, and at the same time alleviates global poverty. The WCED defines sustainable development as "meeting the needs of the present generation without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 16).

However, the concept of sustainable development was subject to critique. Most importantly, the report was a political document, not an academic one, and the WCED made no efforts to explain how the goals should be achieved. The feasibility of the recommendations was not demonstrated (Dryzek, 2013). Already at this point, some critics held that the new promised paradigm was nothing but a greenwashing of business-as-usual (Dale, Mathai, & de Oliveira, 2016). Furthermore, as the envisioned radical change turned out to be rather limited, the ecological meaning of the sustainable development concept was gradually seized upon, and

consequently, towards the start of the new millennium, the concept of sustainable development became more and more synonymous with sustained economic growth (Dale et al., 2016). Also, it is important to note that, in the years before and after the launch of the Brundtland Report, there was a debate on the economic aspects of sustainable development. Already at that point, a "green economy" was suggested as an alternative to conventional economic models. The suggestion was based on the argument that sustainable development would not be possible if economic systems and the environment were treated separately (Pearce, Markandya, & Barbier, 1989). However, these ideas did not gain substantial traction in either academic circles or policy circles until after the triple F crisis, which sparked a reinvigorated debate on the linkages of the economic system, the environment, and the problem of persisting global poverty and inequality (Death, 2015; Dale et al., 2016; Luke, 2009; Newell, 2015; Tienhaara, 2014).

2.1.2 The origins of the green economy

The aim for a transition to a green economy is therefore not an entirely new phenomenon. In the late 2000s there were several attempts at establishing new schools of thought or concepts dealing with issues related to the economic system and the environment. As already mentioned, the combination of the IPCC's report in 2007 and the financial crisis led to the understanding that we need to rethink how we organize production systems and the global economic system, which so far have largely been based on fossil fuel extraction. Therefore, in the aftermath of the triple F crisis, several new green approaches arose. Tienhaara (2014) has made a contribution towards mapping different "varieties of green capitalism" that emerged between 2008 and 2012. She discusses the two approaches of the *Green New Deal* and *Green Stimulus*, and the differences between them, particularly on their positions taken on the state, the market, and the greening and modernizing of industries. These are also key distinctions that can be seen between various green economy approaches today. In 2008, UNEP launched *The Green Economy Initiative* (GEI), which was the forerunner of the Rio+20 conceptualization of *The Green Economy* (UNEP, 2011).

The post-crisis "green" policy attempts that eventually led to the conceptualization of the green economy, must be seen in the light of eco-modernization, which has been on the agenda among environmentalists and economists since the late 1980s (Mol and Spaargaren, 2000). Eco-modernization is a reformist perspective that generally views an ecological crisis as an opportunity to innovate new technology in order to deal with environmental challenges. Low and Gleeson (1998) summarize the main tenets of eco-modernization as (1) the ecologization of production, (2) regulations and market reforms that reflect various ecological priorities, and (3) greening social and corporate practices and values. Adherents of eco-modernization believe in "the self-corrective potential of capitalist modernization" (Low & Gleeson, 1998, p. 165) and therefore, greening industrialization is not regarded as a problem, but a solution that "offers the best option for escaping from the global ecological challenge" (Spaargaren & Mol, 1992; York & Rosa, 2003, p. 273).

Furthermore, the green economy must be seen in light of the "limits" tradition. Building on the report *Limits to Growth* (Meadows et al., 1972), the idea that the Earth has limits in terms of population growth and how we use the Earth's resources started to gain traction in the 1970s. The interest was also rooted in Malthus' predictions of doom (Malthus, 1998 [1798]), and renewed under the neo-Malthusian belief that humans will degrade the planet by their unsustainable use of natural resources, and particularly under the capitalist presumption that growth is unlimited.[5] While these views have been contested, the debate was reinvigorated under a "planetary boundaries" argument made by Rockström et al. (2009). Rockström et al. (2009, p. 472) proposed nine planetary boundaries, three of which had already been overstepped, that must remain intact to avoid "disastrous consequences for humanity," and to ensure "a safe operating space for humanity."[6] UNEP emphasizes this too: "[t]his is our common challenge: creating the conditions for enhanced prosperity and

[5] The *Limits to Growth* report partly led to the emergence of political ecology in the anglophone literature as a critique of apolitical neo-Malthusian presumptions about the relationship between society and the environment (Robbins, 2012). In France, the report partly led to the birth of *décroissance*—today well-known as *degrowth* (D'Alisa, Demaria & Kallis, 2015), which is a central concept in contemporary political ecology, particularly in Southern Europe.

[6] The nine boundaries are: atmospheric aerosol loading, chemical pollution, climate change, ocean acidification, stratospheric ozone depletion, nitrogen cycle and phosphorus cycle (together, the nitrogen and phosphorus cycles represent a biochemical flow boundary), global freshwater use, rate of biodiversity loss (both terrestrial and marine), and change in land use. According to Rockström et al. (2009), the three boundaries that have been crossed are climate change, biodiversity loss, and human interference with the nitrogen cycle.

growing social equity, within the contours of a finite and fragile planet" (UNEP n.d., a). According to UNEP, humanity today is living beyond its means, and both the economic system and the environment must be targeted in order to ensure global sustainable development.

A further "limit" that has been important in the green economy conceptualization is population growth. The argument that the global population is predicted to reach 9 billion in 2050 has been crucial in the understanding and presentation of the planetary crisis we are facing. This argument too builds on neo-Malthusian presumptions, but does not reject technological solutions to overcome the crisis. Indeed, this has been a key argument among proponents of the new green revolution for Africa under a "how to feed the growing population" narrative, and has served as an important building block in the green economy (Gates, 2009; UNEP, 2011; WEF, 2010).

2.1.3 Contemporary green economy policies

Today, there are several parallel green schools, either in addition to, or as subsets of, the overall green economy. There are many ways in which the broader green economy can be read, but the most notable distinction is probably to be made between a green economy and green growth. UNEP (2011, p. 14) holds that the recent traction for a green economy has a deep foundation in the "widespread disillusionment" with the economic system that led to the financial crisis in 2008. In the aftermath of the crisis, governments and policymakers around the world proclaimed that economic recovery had to be green (Ban & Gore, 2009). The main message was that we had left behind us "an era" of "gross misallocation of capital" (UNEP, 2011, p. 14).

UNEP has been at the forefront of the green economy conceptualization, following the publication of its report "*Towards a Green Economy*" (UNEP, 2011). UNEP operates with a definition of a green economy as an economy that "improves human well-being and builds social equity while reducing environmental risks and scarcities" (UNEP, n.d., b). According to UNEP, reshaping the economic system will be crucial. Not only will a green economy be environmentally sustainable, but also it is expected to be "healthier, stronger and more

vigorous with this transformation than without it" (Brockington, 2012, p. 410). In general, the belief in ecological modernization is strong throughout UNEP's report, as most of the solutions suggested by UNEP are technological or market-based. Moreover, UNEP uses the term "inclusive green economy," because "at the end of the day, an inclusive green economy must provide not only for jobs and income, but for our health, our environment, and our future" (UNEP, n.d. a). However, as Brockington (2012) has pointed out, there are several flaws in the report, one of which, importantly, is the lack of understandings of power, inequality, and exactly *how* poor people can benefit from the technological and market-based fixes that are suggested.

In addition to UNEP, the OECD is another influential actor forming the mainstream green economy discourse and agenda. As opposed to UNEP's ("inclusive") green economy, the OECD usually operates with the concept of green growth, with the strongest focus being on continued economic growth, a transformation of existing economic systems, or finding new ways of capital accumulation. The OECD provides the following definition,

> Green Growth means fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. To do this, it must catalyse investment and innovation which will underpin sustained growth and give rise to new economic opportunities (OECD, 2011).

According to the OECD, green growth is not a substitute for sustainable development, but rather a *subset* of it. UNEP, however, emphasizes that the green economy is a *catalyst to achieve* sustainable development because "there is a growing recognition that achieving sustainable development rests almost entirely on getting the economy right" (UNEP, 2011, p. 17). Hence, the green economy and green growth approaches differ in this respect. Both hold that the key aim of a transition to a green economy is "to enable economic growth and investment," but, UNEP adds, this should be done simultaneously as "increasing environmental quality and social inclusiveness" (UNEP, 2011, p. 16).

Furthermore, the OECD holds that green growth should be achieved through "improving resource management and boosting productivity," "encouraging economic activity to take place where it is best of advantage," and finally "innovation," in order to support the two aforementioned means (OECD, 2011, p. 7). Important green growth strategies include cost

efficiency and economic, "smart" growth. According to the OECD, the constraints to achieving such green growth include elements such as inadequate infrastructure, insufficient investment or partnerships, "low human and social capital and poor institutional quality," especially in terms of government reforms, low returns and barriers to competition, and various externalities such as subsidies and taxes, and poor networks (OECD, 2011, p. 9). Policy challenges are more specifically centered on insufficient demand and capability to invest in innovation, lack of finance, regulatory barriers, and the lack of international technology transfer (OECD, 2011, p. 11). To the World Bank (2012, p. 24), green growth means simply and broadly, "economic growth that is environmentally sustainable." Furthermore, this definition of green growth is adopted by many governments in the Global North in their green economy strategies, and is usually the term with which business actors operate.

While the OECD (2009, 2011, 2015) is a clear proponent of green growth, and particularly greening the economy and utilizing the environment (natural resources) to accumulate growth, UNEP (2011) has been more concerned with inclusiveness and sustainable development. The OECD has also taken a more technological stance in the solutions it has presented, while UNEP relies additionally on the adaptation of societies and consumer/production patterns. Regardless of the various small distinctions, the leading green economy actors in the international scene today mainly represent the same trajectory for achieving an environmentally and just sustainable development for the planet: technological innovation and assistance, financialization and investment, and market-based instruments for controlling the environment and the climate.

According to Scoones et al. (2015, p. 1), "talk of transformation is back in vogue." However, they argue, whereas broader calls for radical transformation have been widely ignored, the green economy has attracted attention at the highest levels. Part of the reason for this, is that there is a sense of urgency: never before have we seen such rapid changes with unprecedented consequences (IPCC, 2018). Furthermore, while the sustainable development concept attracted attention within policy and academic circles, it did not manage to unite actors from so many different sectors to the same extent as the green economy has done. Today, under current green visions, environmentalists, capitalists, and

policymakers are gathered behind the same banner and all seem to be proponents of the same: a more environmentally sustainable economy. However, as discussed in this thesis, actors usually disagree on the *methods* of achieving these fuzzy goals, as well as on what the green economy agendas contain.

I would argue that "fuzzy," is exactly how the green economy must be understood. As a concept and agenda, the term is vague, inconsistent, broad, and ambitious (if not utopic). Furthermore, the definitions of a green economy that actors usually operate with are quite open-ended. As a consequence, actors are free to define various versions and successes of the green shift themselves. Due to the lack of proper, clear definitions, the meaning of *greening* something is open to interpretation. By adding green labels to various practices, many actors have found a way of upholding business-as-usual while at the same time caring more for the environment in one way or another. Many companies are striving to achieve their environmental obligations, and because of the vague and loose definitions of the green economy, actors can measure their own green successes. This has opened up for processes of greenwashing, and makes it difficult to measure successes or failures of green transitions.

2.1.4 Policies and institutional dimensions of green transitions

Reorienting economic activity and policy agendas at the global scale requires immense policy shifts, and will have institutional implications across borders. The ways in which the green economy manifests in practice today have revealed some hybrid and fuzzy institutional arrangements:

> Much of the green economy's strategic direction will be defined by national policies and networks of international, state, subnational, and nonstate actors seeking to capitalize on opportunities offered by green economy agendas. The likely result of this blend of government-led green-economy strategies and "private regimes" will be a mosaic of practices that displays both synergistic components and dysfunctional overlaps and which has hazy systems of accountability for ensuring consistency between higher level visions of the green economy visions and on-the-ground green-economy strategies (Bailey & Caprotti, 2014, p. 1799).

In order to be able to explain how green shifts will take place in practice, it is therefore necessary to understand politics, as well as which pathways are legitimized and supported,

which that are not, and, not least, which actors, motives and drivers are weighed the most. Who coordinates these transitions, in what ways, and at which levels? Scoones et al. (2015, p. 7) raise the question of "who steers, and which actors and institutions govern transformations, through which institutional mechanisms operate." Since the green economy is a global construct, it is necessary to look into such matters across different levels and scales—local, national, regional, and global. It is also important to understand how institutions and governments build their green economies, and under which premises and guises they argue.

Based on the complexities described above, a main argument in this thesis is that it is important to distinguish between the green transformations that take place in practice (Mazzacuto, 2015; Newell, 2015; Parr, 2016; Spratt, 2015) and the overall green economy discourses that shape the policies behind those schemes (Dryzek, 2013; Hajer, 1995; Scoones et al., 2015). The latter is a main contribution of this thesis, and I will therefore in the following section introduce the scholarly literature on green economy discourses.

2.1.5 Green economy discourses

According to Wanner (2015, p. 22), discourses are "processes that construct understanding and meaning about things or issues in the world, such as 'human-nature' relationships or a 'green economy'." I read discourses along the lines of Dryzek (2013), who defines a discourse as a shared apprehension of the world that legitimizes knowledge, and "coordinate the actions of . . . people and organizations" (Dryzek, 2013, p. 10), especially in global politics, power and practices (Hajer, 1995). I discuss the discourse concept in more depth in Section 3.3, but in this section I provide insights into how the green economy can and must be understood through a discursive approach.

I regard the green economy as an overall hegemonic environmental discourse, which can also be categorized into several subdiscourses and with competing counter-discourses. While some see the green economy as one approach under a broader environmental management discourse (Dryzek, 2013), others see the green economy as neoliberal, and yet

others see the same policy as being radical.[7] Furthermore, some might reject the concept of a green economy completely, while others seek to elaborate on it and promote ideas of a fair and just green economy, or "prosperity for all within one planet limits" (Green Economy Coalition, n.d.). However, it is important to note that the power attributed to the green economy is primarily discursive. Few countries in the world today are fulfilling the aims and promises of the green economy, and global environmental politics are certainly not going in the direction of what the green economy promises. Nonetheless, I regard the green economy discourse as powerful, not because it fulfills its promises, but because of its discursive and rhetorical power, and because it has widespread repercussions in many sectors, and influences policies and institutionalizations on a broad scale.

Based on the variety of green approaches and the necessity to provide proper definitions or categories, scholars have categorized the green economy in different ways. Following Hajer's (1993) concept of "discourse coalitions," several distinct versions of a green economy exist. Ferguson (2015) sees the green economy in terms of its potentials in actually realizing a green shift, and suggests a threefold categorization of (1) a *weak* green economy, (2) a *transformative* green economy, and (3) a *strong* green economy. Ehresman and Okereke (2015) suggest three categories along the same lines: a *thick* green economy, a *moderate* green economy, and a *thin* green economy. This is similar to Bina's identification of three categories of a green economy: *almost business as usual*, *greening*, and *all change* (Bina, 2013). Death (2015) similarly distinguishes between the following green economy discourses, only adding growth as a separate discourse to Bina's categorization: *green resilience*, *green growth*, *green transformation*, and *green revolution*.[8] Dryzek (2013) proposes four "cells" that represent different ways of perceiving environmental problems. The first cell is *environmental problem solving*, building on eco-modernization, and the second is a *limits and survival discourse* that stems from the 1970s (Meadows et al., 1972) and has been reinvigorated today under ideas of planetary boundaries (Rockström et al., 2009). The third cell is *sustainability*, which is identified by "imaginative attempts to dissolve

[7] As an example, the business sector tends to see a green shift as a rather radical solution, whereas the political left usually sees the green economy as "business-as-usual."

[8] The Green Revolution discourse identified by Death (2015) here must not be confused with the agricultural Green Revolution as discussed in this thesis.

the conflicts between environmental and economic values that energize the discourses of problem solving and limits" (Dryzek, 2013, p. 16). Lastly, the fourth cell proposed by Dryzek (2013) is *green radicalism*, which is similar to Death's *green revolution* discourse.

Scoones et al. (2015) suggest four different approaches (or, as they call it, "narratives") to a green transformation.[9] Each of these reflects different views on the concept of sustainability, and represents different framings of the problem as well as to the solutions presented. The first approach is *technocentric transformation*, which is not surprising, since it is a key part of most mainstream green economy policies and approaches (e.g., OECD, 2009, 2015; WEF, 2010). The technocentric narrative seeks to find "the right combination of technologies to meet rising demands in greener ways" (Scoones et al., 2015, p. 10). This is a reformist perspective on the green economy, which usually demands relatively less political involvement, and consequently often ignores aspects of power dynamics, the global political economy and social structures. The second narrative proposed by Scoones et al. (2015), is *marketized transformations*. The market is regarded as the problem; hence, the solutions lie in the market. This thinking is very much along the lines of OECD's (2009) green growth agenda. The market is regarded a key actor in the green shift, also according to UNEP (2011), which holds that the main bulk of investments in the green shift will have to come from the private sector. This approach is illustrated by the Payment for Ecosystem Services (PES) scheme and the Economics of Ecosystem and Biodiversity (TEEB) initiative (TEEB, n.d.). A further example of the approach is REDD+. According to Scoones et al. (2015, p. 13), "an array of schemes is now unfolding to value and trade aspects of ecosystems now (re)defined as financialized commodities," as also discussed by Brockington (2011). The two final green transformation approaches proposed by Scoones et al. (2015), are *state-led transformations* and *citizen-led transformations.* Tellingly, these approaches differ in their views on who is mandated to drive, or "steer," a green transformation. A state-led approach ultimately emphasizes taxes, incentives, entrepreneurship, and green industrial policy (again much along the lines of eco-modernization). The citizen-led approach is a more populist approach with a strong belief in counter-movements to mainstream neoliberal policies, including

[9] According to Scoones et al. (2015), calling it green transformations (as they do) rather than transitions implies more attention to power and policy. Since such attention is broadly lacking, I find the term "transitions" more suitable to describe this discourse, as it is being implemented and institutionalized in practice.

movements such as the *degrowth* movement (D'Alisa et al., 2015), *doughnut economics* (Raworth, 2017), *food sovereignty* (Holt-Giménez & Shattuck, 2011), *buen vivir* (Kothari, Demaria, & Acosta, 2014), and *eco-swaraj* (Kothari et al., 2014). These movements could be regarded as counter-discourses to the mainstream green economy, as they usually propose radically different bottom-up solutions to the global challenges imposed on the world by the leading actors who now aim to find varied green mainstream solutions towards solving them. Nonetheless, I consider that such movements still belong under the overall green economy, as they too represent an attempt to solve the contemporary crises of the environment, climate, global poverty, and economy.

Building on the insights from these categorizations, while developing my own analysis of the green economy, I identify four discourses on the green economy. These can be summarized as *green growth*, *green transitions*, *people's green movements*, and *modernization of natural resource management*. The first two discourses summarize the two most common ways leading actors understand and implement the green economy, namely as green economic growth and technological transitions. The third discourse mirrors various environmental on-the-ground movements or counter-discourses to the green economy, as outlined above. The fourth discourse on the green economy that I identify—modernization of natural resource management—has not been sufficiently discussed in scholarly literature. I argue that this discourse drives green economy implementation in the Global South. Hence, this is the dominant discourse in focus in this thesis, and it is discussed in depth in Paper 3.

A main argument in this thesis is that the green economy in the Global South manifests through transformed or modernized management of natural resources. Nature has increasingly become a "trademark incorporated" (Arsel & Büscher, 2012), and as such it is setting standards for environmental conservation, management and policy, and new ways of capital accumulation (Büscher & Fletcher, 2015). I argue that such initiatives represent a discourse of modernization of natural resource management, which can explain dominant contemporary interpretations and implementations of the green economy in the Global South. As mentioned earlier, examples include REDD+; forest conservation; carbon and biodiversity offsetting; investments in the modernization of agriculture to make it more economically *and* environmentally sustainable (e.g., climate-smart agriculture); eco-

tourism, which is a way of both conserving nature but also profiting from it in the process; modernizing pastoral activities to prevent them from being "environmentally degrading" practices; water catchment control; and dams for hydropower. One sector that particularly has attracted actors in the global green shift is the rural agriculture sector in Africa.

2.2 The new green revolution in Africa

For decades, agriculture was largely disregarded in the development sector. According to Oxfam (2014, p. 5), international aid channeled towards the agriculture sector in Sub-Saharan Africa (SSA) dropped from around 25% of total official development assistance (ODA) in the late 1970s and early 1980s, to 13% in the mid-1900s, and to less than 5% in the period 2005–2006. National budgets in SSA countries have mirrored this trend, including in Tanzania. However, the global financial crisis led investors to new sectors (i.e., land and agriculture). Actors increasingly realized the value of agricultural land, as it became clear that many countries would not be (or were already not) able to provide for their own population in terms of food production. A sudden interest in investments in the agri-food industry subsequently led to the food price spike in 2008, which sparked what has been termed the current global land rush, or the new "scramble" for Africa's farmland (Carmody, 2016, Cotula, 2013; Evers et al., 2013; Sulle, 2015).

Since the late 2000s, there has been a wave of investments in agriculture and foreign control over land and other natural resources across the African continent (Anseeuw et al., 2012). When faced with crisis, actors started looking outwards for new sectors in which to invest. Moreover, according to GRAIN (2015, p. 3), fertilizer companies such as Yara "moved aggressively . . . to position themselves as a necessary part of the solution." Simultaneously, for development actors, focusing efforts towards the rural, agriculture sector for poverty alleviation was seen as "a low-hanging fruit." Most of the world's poor are small-scale farmers, many of whom provide for their families alone, and many of them are women. Intensifying production is therefore often perceived as an efficient intervention in order to curb rural poverty (Kay, 2014). In this regard, investing in agriculture was perceived as a

win-win solution to increase food production and boost rural development and economic growth.

Under the green economy, the above-described efforts have been combined with environmental concerns and climate measures. Poverty reduction and economic growth spurred by investments in the agriculture sector are by its proponents believed to have the potential to assure environmental sustainability. This combination targets all three pillars of the green economy, and has therefore increasingly been merged with the new green revolution that is unfolding across the African continent (Daño, 2007; FAO, 2017; GRAIN, 2015; UNEP, 2015; WEF, 2010). Today, a vast number of policy documents discuss and frame the green economy and the green revolution under similar agendas and goals (G8, 2012; Grow Africa, 2013; WEF, 2010). This conceptual fusion proposes a greener repetition of the original green revolution (CGIAR, 1996; Conway, 1997) to feed a growing world population sustainably (Gates, 2009; Horlings & Marsden, 2011). As Bill Gates, a key proponent of the new green revolution, asserted, "we need both productivity and sustainability – and there is no reason we can't have both . . . the next Green Revolution has to be greener than the first" (Gates, 2009).

2.2.1 The first green revolution

The first step towards what was later termed the green revolution—referring only to an agricultural revolution—can be traced back to 1941, when the Rockefeller Foundation sent a team to Mexico to carry out a survey of the country's agriculture sector (Patel, 2013). Agronomist Norman Borlaug,[10] who in 1970 was awarded the Nobel Peace Prize, was central in this work, particularly by developing a "miracle wheat" that was spread to countries throughout Latin America and Asia by the Rockefeller and Ford Foundations during the 1950s and 1960s (Patel, 2013). Through massive investments and efforts in scientific research and technological advancements, the green revolution succeeded in dramatically

[10] Borlaug is primarily known as an agronomist, but his profession has also been presented as plant scientist (Swaminathan, 2009) and biologist (Patel, 2013). Borlaug received his Bachelor of Science degree in forestry and had a PhD in plant pathology (Swaminathan, 2009).

increasing agricultural production and outputs in selected countries. According to the Rockefeller Foundation, the first green revolution[11] was

> a strategic act of philanthropy, enlisting experts, government, and ultimately local scholars and farmers in a carefully wrought partnership that grew geometrically—and deliberately—over many years. Science, donations, and market forces all played an indispensable part; but all were guided, in the first instance, by a philanthropic plan (Rockefeller Foundation, 2006, p. 4).

Moseley (2017, p. 178) argues that the first Green Revolution was "a concerted attempt" to improve food production in the tropics, which grew out of the Cold War geopolitical environment. Moreover, it was a response to the concerns that countries of the Global North had about population growth and hunger in the Global South. There was a fear that Malthus' predictions would prove true, with overpopulation outstripping food production, but more importantly, that this could threaten the consumptive lifestyles of the West (Moseley, 2017). These concerns coincided in time with the appearance of public environmental and neo-Malthusian concerns, articulated by Ehrlich (1968), Meadows et al. (1972) and others, as discussed in Section 2.1.1. Another important backdrop for the green revolution, was the Western concern about communist expansion in the 1950s and 1960s. By providing food security and stable food prices, Western countries anticipated that social unrest leading to communist uprisings could be curbed. William S. Gaud of the United States Agency for International Development (USAID) stated:

> This and other developments in the field of agriculture contain the makings of a new revolution. It is not a violent Red Revolution like that of the Soviets, nor is it a White Revolution like that of the Shah of Iran. I call it the Green Revolution (Gaud, 1968).

Moreover, according to Harris, the term Green Revolution was deliberately coined to

> contrast with the phrase "red revolution," and the notion that "developing" countries were to undergo far-reaching changes as a result of an agricultural revolution, rather than because of radical political transformation, gives a clue to the political interest involved in the generation of the new agricultural technology (Harris, 1988, p. 229).

[11] Some, including Patel (2013) have argued that there were not any first and second green revolutions, but rather one "long, green revolution."

These transformations have been widely celebrated as the triumph of science over the "Malthusian trap." Undoubtedly, there was a huge increase in the production of both wheat and rice in Asia, which exceeded population growth. Record harvests due to the new technology were reported in many countries. According to Conway (1997), total food production more than doubled between 1960 and 1985 in the developing world. In India, which became well known for the vast effects of the green revolution on its rice production, the improvements contributed to the establishment of India as a net exporter of rice. However, the green revolution has also specifically been criticized in the Indian context (Shiva, 1999). Critics, such as Patel (2013) and Lipton (1989), have pointed to massive social and environmental consequences of the green revolution, and how, despite increased production, the number of hungry people increased. Hence, while the green revolution might have succeeded in producing more food, the food was not available or distributed to such an extent that we can talk about any escape from hunger (Holt-Giménez, 2008; Vanhaute, 2011). Environmental consequences included problems of pesticide resistance among insects, loss of agro-biodiversity, farm worker poisonings, salinization, depleted and contaminated aquifers, and soil erosion (Holt-Gimémez, 2008; Moseley, 2017; Patel, 2013).

The main effects that Africa experienced from the green revolution were primarily indirect and discursive (Moseley, 2017). The story about the successes of the first green revolution has played a significant role in the introduction of the second green revolution, and the social and environmental downsides of the revolution seem to have been ignored in the introduction and celebration of the new green revolution in Africa.

2.2.2 Africa's turn

The Rockefeller Foundation made efforts to relaunch the green revolution in Africa already in 1999, but this made little headway until the triple F crisis started to unveil its consequences around 2008. In response to the crisis, and in particular the global food price spike, the Rockefeller Foundation, alongside other philanthropic foundations, and together with governments of industrialized countries and selected African countries, aid agencies, the agribusiness industry, and agriculture research institutions came together "in an

unprecedented and highly coordinated effort" (Moseley, 2017, p. 184) to bring the green revolution to Africa. The effort aimed to frame African hunger as a supply-side problem rather than as an effect of misdistribution and underdevelopment. The proposed solutions were largely centered on yield-enhancing technologies and market integration in agricultural production (Moseley, 2017), in much the similar way to the green economy strategies that started to unroll just a few years later.

In 2006, the Rockefeller Foundation took several steps towards introducing the new green revolution for Africa, and produced its strategy document *Africa's Turn: A New Green Revolution for the 21st Century*. Key strategies included the promotion of hybrid and genetically engineered seeds and chemical fertilizers, the training of African agricultural scientists in crop improvements, market development, strengthening local agricultural dealer distribution networks, investing in infrastructure, and agricultural policy reforms (Holt-Giménez, 2008). Soon after, the Alliance for a Green Revolution in Africa (AGRA) was launched as a collaboration between the Rockefeller Foundation and the Bill and Melinda Gates Foundation. AGRA has since been a key player in the green revolution in Africa. AGRA's strategy reflects the key difference between the first and the second green revolution. While the first green revolution strongly emphasized the state as a strong leader, AGRA has noted that in the *absence* of such a strong development state in most African countries, liberalized national markets, private-sector led initiatives, public–private partnerships, and value chain integration are intended to be the new main engines for poverty alleviation (AGRA, 2015; Holt-Giménez, 2008; Moseley, 2017).

Another key player in the new green revolution in Africa has been the World Economic Forum (WEF) and its groundbreaking roadmap *Realizing a New Vision for Agriculture* (WEF, 2010) (hereafter referred to as the New Vision). The strategy was led by a number of multinational food and agribusiness corporations, and laid the foundation for the engagement of multinational companies in agriculture investment in developing countries (Nogales, 2014).[12] The strategy was aligned with the African Union's Programme for

[12] The companies are: AGCO Corporation, A.P. Møller-Maersk, BASF, Bayer CropScience, Bunge, Cargill, CF Industries Holdings, Coca-Cola Company, Diaego, DuPont, General Mills, Heineken, METRO Group, Mondelez International, Monsanto Company, The Mosaic Company, Nestlé, Novozymes, PepsiCo, Rabobank, International,

Infrastructure Development in Africa (PIDA), and the New Partnership for Africa's Development (NEPAD)'s agriculture program, called the Comprehensive Africa Agriculture Development Programme (CAADP) (Nogales, 2014).[13] The aims of the New Vision are focused on providing global food security, increasing agricultural production in an environmentally sustainable way (including tackling the threats of climate change), and generating economic growth and opportunity (WEF, 2010). Clearly, these aims correspond closely with the aims of the green economy (UNEP, 2011) and strengthens this fusion.[14]

The new market-based model for African agriculture that has dominated agricultural policies and investments in Africa since the late 2000s, reflects an important shift in the way development actors organize their various efforts and implementations. There has been a turn towards the private sector in international development, involving business and private sector entities in both aid and development projects to an increasing extent, and often through public–private partnerships (PPPs) (Adelman, 2009; Arndt & Tarp, 2017; Black & O'Bright, 2016). This private turn often combines development and climate measures, channeling donor money into green sectors in the Global South (Arndt & Tarp, 2017). The combination largely results from the converging triple F crisis that found "triple win" solutions in the green economy. Green sectors in the Global South have become important outlets for international capital in recent years, reinforcing a contemporary cycle of material expansion in this stage of capitalism (Bergius et al., 2018; Kröger, 2013; 2016; Patel & Moore, 2017). This turn towards involving private sector actors and the "trade not aid" trend, has spurred a rise of philanthrocapitalism in many sectors, not just agribusiness (Adelman, 2009). Philanthrocapitalism holds that the private sector and market forces are central to global change, and often relies on idealistic worldviews. Companies' profit motives often drive such collaborations, but philanthrocapitalists believe that it will be for the common good to marketize and capitalize on food production or other development efforts. For example, Cargill's former chairman Greg Page described the corporation's support for the

Royal DSM, SABMiller, Sinar Mas Agribusiness and Food, Swiss Reinsurance Company, Syngenta International, Unilever, Wal-Mart, and Yara International (Nogales, 2014).

[13] See Cooksey (2013) on the CAADP in Tanzania.

[14] For a broader perspective on the commercialization of agriculture under the new green revolution in Africa, see Daño (2007), Dawson, Martin, & Sikor (2016), Eddens (2017), McKeon (2014), Moseley, Schnurr, & Kerr (2017), Patel et al. (2015), and Westengen et al. (2017).

new green revolution as "the commercialization of photosynthesis" (Moseley, 2017, p. 186). Philanthrocapitalist involvement must be seen in light of how philanthropic foundations probably favor the possibilities of branding and selling technological packages as solutions to the planetary crisis rather than targeting the production and consumption systems on which many philanthropic companies depend.

Thus, the role of the state in the new green revolution has shifted towards becoming primarily a facilitator of conducive business environments to allow the private sector and large agribusinesses to take on a leading role through investments (Moseley, 2017). African elites are key drivers in this shift too. Moreover, while some of the leading actors behind the new green revolution are the same as those in the first green revolution (such as the Rockefeller Foundation and USAID), a myriad of new actors have become involved, such as the Bill and Melinda Gates Foundation, Alliance for a Green Revolution in Africa (AGRA), and the G8's New Alliance for Food Security and Nutrition (hereafter referred to as the New Alliance). Many of the new arrangements in the new green revolution are therefore driven by PPPs. Governments across Africa are turning to large-scale partnerships with donors and companies in order to secure much-needed investments in the agriculture sector.

The OECD estimated that in 2010 donors channeled 903 million USD of aid into PPPs (not specifically agricultural PPPs) compared with 234 million USD in 2007 (Tomlinson, 2012). European development finance institutions (DFIs) have played a substantial role in this coordinated effort. DFIs have grown substantially since the financial crisis, not only in terms of economic capacities, but also in their visibility and reach (Kennard & Provost, 2016; Kwakkenbos, 2012). According to Kwakkenbos (2012), cash flows from European DFIs between 2006 and 2010 increased the funds' investment portfolios by 190%. With regard to agricultural private-sector aid, donors have committed almost 6 billion USD in multiannual ODA to projects connected to the New Alliance (Oxfam, 2014).[15] This growing significance of the DFIs and PPPs is important in the private turn within aid and development since the financial crisis. Furthermore, the new green revolution for Africa must be seen in the context

[15] In order of size of commitments, the donors are: the USA, the EU, the UK, France, Germany, Japan, Canada, Italy, Norway, and Russia, in addition to smaller commitments by Belgium, Ireland, Switzerland, the Netherlands and the African Development Bank (AfDB).

of global geopolitics, as was also the case with the first green revolution. USA involvement in Sub-Saharan African countries such as Malawi and Mozambique mirrors its aims of privatization and involvement in Latin America in the 1960s (Patel, Kerr, Shumba, & Dakishoni, 2015). Also Green (2015, p. 632) notes that the "current incarnation" of the growth and modernization agenda is turning the private business sector into "development catalysts." This is largely a result of the triple F crisis that has been strengthened under the green economy. International development funding has increasingly been channeled towards PPPs or into schemes based on the idea that profit-driven initiatives will catalyze economic growth and development, based on a trickle-down effect (discussed in Paper 2).

Since the late 2000s there has indeed been a wave of various agricultural schemes across the African continent (and beyond).[16] Many of these schemes have materialized in corridors.[17] The idea of agriculture corridors as an economic development strategy, particularly in Africa, gained increased global attention after 2008 (Byiers & Rampa, 2013). The concept was first suggested by the multinational, Norway-based fertilizer company, Yara, at the UN Private Sector Forum in 2008 (Jenkins, 2012). In the African context, the agriculture corridor approach came largely from the World Economic Forum (WEF) and the Grow Africa initiative (Grow Africa, 2013). Corridors usually target the most fertile land, and seek to push changes in economic, legal and regulatory policies to ensure the best conditions for private sector engagement. The logic behind such partnerships is that incentives (such as tax relief and land policy regulation changes), combined with the development of backbone infrastructure (e.g., roads, railways and reliable electricity), will encourage investors and large-scale agribusiness operators to enter Africa. However, Oxfam (2014, p. 1) argues that such initiatives are uneven and risky, with benefits only for the more powerful, and with the risks and losses placed on the shoulders of the most vulnerable (Byiers & Rampa, 2013; Paul

[16] In addition to SAGCOT, there are a number of other agricultural growth corridors across Africa, which are not examined here. The most important one is the Beira Agricultural Growth Corridor (BAGC) in Mozambique, which is based on the same preconditions and agreements as SAGCOT. Additional corridors are the Ghana Commercial Agriculture Project (GCAP), the Green Belt Initiative (BGI) in Malawi, the Bagré Growth Pole in Burkina Faso, and the Nacala Growth Pole in Mozambique, also called the ProSAVANA project. In Kenya, there is also the LAPSSET corridor, which is a development corridor targeting other sectors in addition to agriculture. Moreover, apart from corridors, the New Alliance operates in ten SSA countries, and Grow Africa operates in eleven SSA countries.
[17] Earlier corridor initiatives centered on *infrastructure* corridors, later on *development* corridors, and then later still on the more specialized *agriculture* corridors.

& Steinbrecher, 2013). Bailey and Caprotti (2014) argue that the green economy too is likely to result in a "blend" of government-led regimes with strong private sector involvement. This is well illustrated through the hybridization of the green economy and strategies of the new green revolution in Africa, which mainly consist of large-scale PPPs, philanthrocapitalist interventions, and agricultural corridors with a myriad of different partners working to reach different, albeit interlinked, goals framed under the same headings.

2.2.3 A doubly or triply green revolution?

In the first green revolution, "green" referred to agriculture. In the new green revolution, "green" has gradually gained an expanded symbolic meaning that incorporates ecological concerns and the environment. Already in 1997, Gordon Conway, then the newly elected president of the Rockefeller Foundation, called for a "doubly green revolution" (Conway, 1997), essentially making the case for an "ecologically-sound replay" of the first green revolution (Patel, 2013, p. 37). Ismail Seregeldin, then head of the Consultative Group of International Agriculture Research (CGIAR), even called for a "thrice green revolution: green for productivity, green for environmental sustainability, and green for increased income" (Holt-Giménez, 2006, p. 156). In 2009, the then Executive Director of UNEP Achim Steiner, said that "we need a Green Revolution in a Green Economy, but one with a capital G" (Deen, 2009). These remarks were presented at the Global Ministerial Environment Forum in Nairobi in 2009, during the launch of the report *The Environmental Food Crisis* (UNEP, 2009) and by far represent the contemporary emerging trend that combines the green economy with calls for a new green revolution in Africa.

The merging of the green revolution and the green economy is increasingly materializing under new terms such as "Agriculture Green Growth" (AGG) (SAGCOT, 2013), "climate-smart agriculture" (CSA) (FAO 2010; Newell & Taylor, 2018), "sustainable intensification" (Horlings & Marsden, 2011; Struik & Kuyper, 2017), and "conservation agriculture" (Westengen et al., 2017). This expanded "greenness" has paved the way for large-scale agricultural initiatives and agribusiness investments such as the New Alliance (G8, 2012), Grow Africa (2013), the Comprehensive Africa Agriculture Development Programme

(CAADP) (Daño, 2007; McKeon, 2014; Oakland Institute, 2016; Sulle, 2015), and, as discussed in this study, the Southern Agricultural Growth Corridor of Tanzania (SAGCOT).

2.3 Tanzania and its agriculture sector

During the 1950s and 1960s, technical assistance and modernization dominated British development efforts in the colonies, also in the agriculture sector. In 1946, the infamous "groundnut schemes" were initiated in several districts in Tanzania (Coulson, 2013). The intention behind them was to provide the British corporation Unilever with groundnut oil for the production of soap and margarine, in the context of the British undergoing a severe financial crisis (Rizzo, 2006). This was considered a win-win project that would benefit both the British business sector, but also contribute to development in rural Tanzania. However, the project failed immensely, due to insufficient planning and limited understanding of local contexts, and both social and environmental consequences were huge (Rizzo, 2006). Not only has the initiative served as an example of the failure of British colonial developmentalism in general, but also, importantly, as one of the first examples of a failed external investment in Tanzania.

After independence, Tanzania—under President Nyerere—pursued a state-led modernization model with a strong focus on agricultural production, in common with many other post-independent African countries. In 1967, President Nyerere launched the concept of *ujamaa* as a form of African socialist development model in the Arusha Declaration. *Ujamaa* implied that every Tanzanian should work "harder and better" with their own "hands and brains" for the development of the country, and this included the villagization project, in which a large number of Tanzanians (an estimated 70% of the total population, according to Coulson (2013)) was voluntarily or forcefully moved into production villages to increase agricultural production. However, production rates fell under *ujamaa*, to an estimated 1.8% in 1982 (Coulson, 2013; Eriksen, 2018). Western financial institutions' pressure on Tanzania to accept the structural adjustment programs (SAPs) was high, and with Nyerere's successor, President Mwinyi (1985–1995), Tanzania turned to market liberal

economic policies and the implementation of SAPs from 1986 onwards, which continued under President Mkapa (1995–2005) (Havnevik & Isinika, 2010).

Figure 1: Africa and the location of Tanzania adapted from original map by Google Maps, 2019.

Figure 2: Detailed map of Tanzania (United Nations, 2006).

Tanzania remains poor, ranked at no. 154 of 189 in 2017, with a Human Development Index (HDI) of 0.538 (UNDP, n.d.). Poverty is primarily a rural problem, and Tanzania has continued to struggle with food insecurity and hunger despite the fact that the country has one of the world's richest and most varied natural resource bases and the most fertile soils. In the Tanzanian workforce, 80% is engaged in agriculture, although agriculture only

accounts for around 3% of the GDP growth rate, whereas the overall GDP growth rate in Tanzania is around 7% (Eriksen, 2018). Nonetheless, agriculture, including irrigated rice production (Woodhouse et al., 2016) and a few cash crops such as coffee and cashew, remains an important contributor to the country's economy, in addition to minerals, coal, gas, and tourism.

In 1999, Tanzania launched the Tanzanian Development Vision 2025, which was one of the first national strategies in Africa to target the agriculture sector, despite the low interest in agricultural development and investments during the 1990s (United Republic of Tanzania (URT), n.d., a). With the election of President Jakaya Kikwete in 2005, Tanzania embarked upon a strategy to invest in agriculture through a number of initiatives and policy frameworks. In 2006, the Agriculture Sector Development Programme (ASDP) was launched (United Republic of Tanzania, n.d., b).[18] The ASDP aimed to increase agricultural productivity and targeted an annual growth rate in the agriculture sector of 10% from 2010, primarily under state-led strategies.[19]

In 2009, the Kilimo Kwanza ("agriculture first") initiative was launched (Tanzania National Business Council, 2009). In contrast to ASDP, the aim of Kilimo Kwanza was to modernize and commercialize the agricultural sector in Tanzania with the help of incentives from the private sector (Coulson, 2015; Sulle, 2015). While ambitious targets for agricultural modernization and production were not new in Tanzanian agricultural history, Kilimo Kwanza was essentially the first initiative to bring on board the private sector to a significant extent. It was regarded as a PPP, in which the private sector should be the leader and "engine" of economic growth (Coulson, 2015, p. 59). Furthermore, the role of the Tanzanian state in allocating land for large-scale agriculture investments was (and is) emphasized to a much greater extent in Kilimo Kwanza than in previous strategies. In 2013, the government announced the Big Results Now (BRN) initiative, with the aim, among other things, to establish a number of large-scale commercial farms to grow rice and sugarcane by 2015–2016, with a focus on cross-sectoral development planning. Agricultural infrastructure

[18] Phase 2 of ASDP was launched in 2016 (United Republic of Tanzania, 2016).
[19] See Cooksey (2012) for more about the ASDP.

development such as food storage facilities has also been a priority. The BRN strategy was based on the green revolution in Asia and Asian development models, such as China, Vietnam, and particularly Malaysia, where during a visit in 2011, President Kikwete had been impressed by the need for an active and interventionist state. The Asian influence has therefore been crucial in Tanzania's agricultural modernization in many ways.[20] The "first child" of Kilimo Kwanza (Jenkins, 2012), and the most important one, was launched in 2010, namely, SAGCOT.

2.3.1 The Southern Agricultural Growth Corridor of Tanzania (SAGCOT)

At a side event at the Rio+20 conference in 2012,[21] Dr. Terezya Huvisa, the Tanzanian Minister of State at the Vice President's Office for Environment, presented SAGCOT as a green economy initiative from which Tanzania would "benefit immensely" (Kabubu, 2012). It would be a "laboratory for testing and implementing [the] concept [of green growth that] will provide valuable lessons for the agriculture sector in Africa" (Kabubu, 2012). The Minister referred to the newly published Greenprint (SAGCOT, 2012) as a strategy for implementing green growth, and emphasized that Tanzania was embarking on the road to implementing a green economy. Furthermore, she said, "the green growth concept will give hope to sustainable climate-smart agriculture and social development to be mainstreamed into development initiatives" (Kabubu 2012). The ambitions are high, and according to SAGCOT (2013, p. 1),

> a different future is possible, one that develops southern Tanzania into a major regional food producer and engine of national economic development, dramatically reduces poverty among its nine million residents, protects the rich biodiversity that underlies a dynamic tourism sector and sustains the region's ecosystems as the productive base of future wellbeing.

From the statement above, it is apparent that SAGCOT is a good example of the contemporary new green revolution in Africa, with its focus on agricultural commercialization, growth and

[20] As of November 2016, none of the planned large-scale commercial farms had been implemented (Chung, 2017).
[21] The side event was organized by WWF and the African Development Bank, and discussed investing in natural capital as a green economy strategy (Kabubu, 2012).

investment through large-scale planning and the involvement of the private sector and multinational agribusiness industry. However, the statement also shows how SAGCOT is a good example of a green economy initiative in practice, with its goals of poverty reduction, economic growth and environmental preservation (SAGCOT, 2011, 2012, 2013).

The first ideas about an agricultural corridor in Tanzania came from Yara in 2005 and related to agreements with the Tanzanian Government to establish a fertilizer storage facility in Dar es Salaam (Jenkins, 2012; Paul & Steinbrecher, 2013). President Kikwete was, as mentioned in Section 2.3, a strong proponent of agricultural development, and sought increased cooperation from abroad during the mid-2000s. With funding from the Norwegian government, both Yara and the Agriculture Council of Tanzania (ACT) set up the Tanzania Agricultural Partnership (TAP) as a new coordinated approach to agricultural development in Tanzania.[22] Yara sought new market opportunities to sell fertilizers through the initiative, while a more specified goal was to engage district government authorities, farmers and agribusinesses to identify bottlenecks in selected commodity value chains, and catalyze investments to remove them (Jenkins, 2012). As discussed earlier, these ideas and collaborations surfaced at a time when investors started to look outwards after the triple F crisis (2007–2009), new ideas about greening capitalism started to emerge (in 2008), collaborative efforts to introduce the green revolution to Africa took place (Rockefeller Foundation, 2006; WEF, 2010), and the idea of agricultural corridors had just been launched (in 2008). At the G8 summit held in L'Aquila, Italy, in 2008, participants committed to allocate 20 billion USD over the next years for action on sustainable agricultural development (G8, n.d.).

The SAGCOT idea was conceived in this milieu in 2009, as a collaboration between the Government of Tanzania, the Tanzania Investment Center (TIC), Yara, the Norwegian Embassy, the Norwegian Investment Fund for Developing Countries (Norfund), the African Development Bank (AfDB), and the World Bank, and was officially launched at the World Economic Forum held in Tanzania one year later (in 2010).[23] Evidently, SAGCOT had a clear

[22] ACT is a private membership apex association of farmers groups, companies and agribusiness enterprises.
[23] Another corridor is the Beira Agricultural Growth Corridor (BAGC) in Mozambique. For an update on the Beira corridor, as well as some insights into why Yara left Mozambique for Tanzania, see Kaarhus (2018).

top-down agribusiness profile already from the beginning, which was dominated and driven by foreign multinational organizations and corporations. As earlier mentioned, the private sector has increasingly been recognized as a crucial partner in the wider development community under the green economy, but specifically in the new green revolution for Africa (Jenkins, 2012). This corresponds to the visions of SAGCOT. Former President Kikwete stated in the foreword of the *SAGCOT Investment blueprint* (hereafter referred to as the Blueprint) that earlier agricultural strategies in Tanzania had failed to recognize the "critical importance of the private sector participating actively in the agricultural production," and that SAGCOT, as the first initiative to acknowledge this, now properly anchors this involvement (SAGCOT, 2011, p. 5).

Thus, SAGCOT is a PPP between the Tanzanian Government and more than 100 partners.[24] Although the partners comprise both government agencies, such as a broad range of ministries and various organizations, and the Tanzanian private sector, the majority of the partners are tied to the multinational agribusiness industry. Additionally, some local associations and a small number of donors and development aid agencies are involved (SAGCOT, 2013). SAGCOT aims, by 2030, to mobilize 3.5 billion USD in investments, bring 350,000 hectares of land into commercial farming, create 420,000 new employment opportunities, and lift 2 million people out of poverty (SAGCOT, 2012).[25] Its threefold goal is to accumulate economic growth, increase agricultural production, and preserve the environment (SAGCOT, 2012, 2013).[26] Geographically, the SAGCOT corridor spans Tanzania's most fertile lands—"the breadbasket" of the Southern Highlands. From Dar es Salaam on the coast towards the Zambian border to the west, SAGCOT encompasses about one-third of Tanzania's mainland—ca. 5 million ha (Figure 3). Approximately 10 million people live in the area, the majority of whom are smallholder farmers and pastoralists.

[24] According to SAGCOT's webpage, as of 2017, the partners consist of: 63 private sector companies, 2 commercial banks, 8 apex and farmer organizations (although, importantly, the biggest organization for small-scale farmers in Tanzania, MVIWATA, is not a partner), 35 development partner organizations, research organizations and CSOs, 15 ministries from the Government of Tanzania, 14 other government-led agencies or regulators, and 4 public financial institutions. Retrieved from http://sagcot.co.tz/index.php/partnership/#1533983624522-4d9fc29d-801a

[25] SAGCOT information leaflet (untitled) distributed at Nane Nane Farmers' Day, Mbeya, August 8, 2015

[26] SAGCOT information leaflet titled "Creating a definition of inclusive green growth in SAGCOT: Key elements and questions to consider in the design and implementation of agriculture projects", distributed at the SAGCOT partnership forum, Dar es Salaam, March 10, 2017.

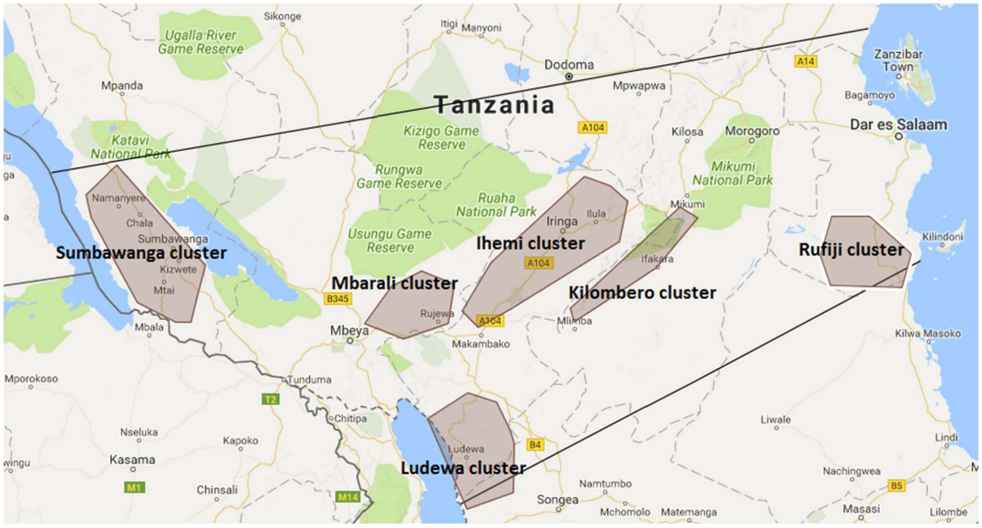

Figure 3: Tanzania and the Southern Agricultural Growth Corridor, with the six production "clusters" highlighted (based on original map of Tanzania by Google Maps, 2017).

SAGCOT's strategy is to incorporate smallholder farmers into enhanced and commercialized agricultural production. It seeks to provide market access and assistance to increase agricultural production through value chain models and extension services to small-scale farmers. Offering inputs from partners such as Yara and Syngenta is key in this strategy. Although there will probably be a smaller number of plantations, the main strategy is out-grower schemes (SAGCOT, 2011). Already in the early years, SAGCOT presented a cluster-model targeting six regional hubs where it subsequently sought to concentrate its efforts. It also presented two flagship projects: the Swedish-owned EcoEnergy sugar plantation outside Bagamoyo, located north of Dar es Salaam on the coast of Tanzania (see Figure 3) (Chung, 2018; Havnevik & Haaland, 2011), and Kilombero Plantations Limited (KPL), which produces rice (Bergius et al., 2018). In the early policy frameworks, the main crops were rice and sugar. Both crops were meant to serve the domestic market but were also intended for export and industrial development. After a fair amount of turmoil associated with the two projects, particularly concerning land grabbing issues (e.g., ActionAid, 2015; Bergius et al., 2018; Oakland Institute, 2015), SAGCOT discretely turned to other, smaller, projects

instead.[27] As of 2018, three of the clusters had opened regional offices with one or two showcase outgrower contract arrangements each.[28] The main crops grown under these schemes are potatoes, tomatoes, soy, and tea, as well as a focus on dairy production. After nine years in business, it is hard to argue that SAGCOT has succeeded in achieving its ambitious goals. Although some success stories of small-scale farmers having been integrated in value chains and benefited from cooperation have been reported, SAGCOT has by and large not been able to fulfill its promises.

SAGCOT's first mission was to serve as an investment portfolio, and to function as a common platform for partners in the agriculture sector in Tanzania who wished to collaborate. However, as discussed in Paper 1, SAGCOT soon took a "green" turn. The 2011 Blueprint identifies several "early-win" investment opportunities considered "low-hanging fruits" for fast profit, and several chapters are preoccupied with arguing why investors should engage in Tanzania (SAGCOT, 2011). Only two years later, the Greenprint had been adapted to fit with the emerging green economy (SAGCOT, 2013). The Greenprint aims to "refine the SAGCOT strategy to ensure that development in the Corridor is environmentally sustainable, socially equitable, and economically feasible" (SAGCOT, 2012, p. ii). The aim is based on the recognition that

> society now looks to agricultural landscapes to provide a range of goods and services – not just food – and that markets are increasingly rewarding farmers for doing so. In this way, resource conservation, efficiency, and sustainability are not costs of doing business; on the contrary, they are woven into the core logic and business case of all new land-based investment (SAGCOT, 2012, p. ii).

Such statements make a very interesting case for investigating the ways in which SAGCOT has been framed within the green economy and presented as a successful implementation of the green economy in the Global South.

[27] Both projects are now out of business. The EcoEnergy project was shut down by the government in 2016 (Makoye, 2016), while KPL is most likely to shut down in 2019 (Africa Confidential, 2019).
[28] The three clusters are the Kilombero cluster (cluster office opened in Morogoro in 2018), the Ihemi cluster (cluster office in Iringa opened in 2017), and the Mbarali cluster (cluster office opened in Mbeya in 2017), in addition to the headquarters, which is located in Dar es Salaam, and a satellite office located in Dodoma.

3. CONCEPTUAL AND THEORETICAL FRAMEWORK

In this chapter, I briefly outline the conceptual and theoretical frameworks I have drawn on to support my research and analyze my findings. In order to provide an understanding of how policies and discourses of the green economy transfers to and transforms into implementation, I draw on insights from governmentality (Foucault, 1991), an overall discourse framework (Dryzek, 2013; Hajer, 1995), and institutional bricolage (Cleaver, 2012). Furthermore, the study is anchored within a broader political ecology (Adger, Benjaminsen, Brown, & Svarstad, 2001; Forsyth, 2003; Peet, Robbins, & Watts, 2011). I also build on power as an important concept, particularly insights from Dryzek (2013), Foucault (1977, 1991), Li (2007a) and Lukes (2005).

Although this study is not a study of environmental governance per se, it discusses and analyzes findings that are relevant to how the environment and natural resources are being governed or managed, and how environmental policies are being formed. Following Evans (2012, p. 4), environmental governance, in its broadest sense, is central to the study of "how to steer the relations between society and the environment." Benjaminsen and Svarstad (2017) hold that environmental management in political ecology is concerned with distribution, conservation and use of the environment and natural resources. Power, based on agency, social structures, and choices made by actors, is essential in such analysis.

I follow Scoones et al. (2015, p. 3) on the study of green transformations: "transformations are inevitably multiple and contested, as pathways interconnect and compete . . . Politics and power are important to how pathways are shaped, which pathways win out and why, and who benefits from them." This angle links with critical institutionalism (CI) as defined by Cleaver (2012). CI holds that institutions are complex, negotiable and fuzzy, they often have multi-purpose functions, and they can be both formal and informal.[29] More importantly, Cleaver (2012) holds that some of the work in CI is not essentially on institutions per se, but on the systems and powers *surrounding* institutions, such as for example the work done by

[29] By contrast, mainstream institutionalism (MI) sees institutions as arrangements or regulations that are clear, normative, functional and instrumental, that address a defined dilemma, and shape how individuals act (Cleaver, 2012). I do not reject this view, as most of the organizations studied in this research are indeed both functional, instrumental and well-defined. However, the focus of this study is on the complexities and power in policy formation and implementation.

Mosse (2005). Hence, CI is interested in alternative ways of thinking about management of natural resources, as well as the relationship between the social and natural world. This perspective is relevant for this study, since it discusses institutional interplay and the study of how power shapes policies. Indeed, as Dryzek (2013, p. 9) holds, environmental issues are complex, interconnected and multidimensional, and so are human decision systems. Hence, environmental policies are "doubly complex."

This relates to my study, as I argue that invisible (but real, following a critical realist epistemology) structures such as power and discourses essentially shape institutionalization of policies (Dryzek, 2013; Lukes, 2005). Environment and development interventions under the green economy typically follow institutional principles of mainstream institutionalism (MI), since these are far more normative and instrumental. This may contribute to answering why such interventions often do not seem to succeed, or essentially, why there is a gap between policy and practice (Mosse, 2005) – or, as discussed in this study, why and how discourses transform in the process towards policy implementation. This perspective follows Cleaver's (2012, p. 9) argument that CI is better suited to more fully address "issues of power and inequality and to understand *why* designed institutions turn out in unexpected ways."

An extensive literature discusses practicalities of various green transitions and green economy implementations. Much of this literature draws on socio-technological transitions theory (Bailey & Wilson, 2009; Geels, 2010; Shove & Walker, 2010), which stems from "the idea of a broad-based transition towards more sustainable, just, and resilient economics" (Bailey & Caprotti, 2014, p. 1803). The literature offers important insights into how and when such transitions are possible and how they emerge. The approach seeks to explain the implications of adapting and adjusting societies into more environmentally sustainable and resilient societies, often in an economic or technological framing, and can provide insights to the structures and mechanisms of the green economy, relating also to ecological modernization (Mol & Spaargaren, 2000).

However, this literature has fallen short in understanding the political economy and power dimensions of green transitions. Transformation politics, such as the implementation of the

green economy, have implications within governance and decision-making at multiple scales. Since green economy implementation is much more than a purely technical matter, a deeper understanding of *how* transitions take place and *who* drives the green transitions is necessary. Whose narratives and priorities win in the formation of new policies, which discourses institutionalize and which do not? Bailey and Caprotti (2014, p. 1798) suggest that it may be useful to examine the green economy in light of these mattes and especially "the power politics shaping its identity." Since this study is heavily anchored in a discussion of such power dynamics, it is necessary to introduce how I understand "power" and the ways in which it is relevant for this study.

3.1. Perspectives on power

In its most general sense, power is exercised by actor A if he or she can persuade actor B to do something that B would otherwise not have done (Dahl, 1957). This view of power is a classic actor-oriented perspective, along the lines of Weber (1964). However, Long (2001) argues that while actors are important, there are also structures in the society that influence the actors. According to Long (2001, p. 17), agency "is embodied in social relations and can only be effective through them." Drawing essentially on Latour (1986), Long (2001) argues that power is composed of actors in a given social or political scheme. Hence, agency and power "depend crucially upon the network of actors who become . . . enrolled in the 'project'" of someone else (Long, 2001, p. 17). These perspectives relate to both Giddens' structuration theory (Giddens, 1984) as well as the work of Bourdieu (1977).

Lukes (2005) suggests a three-dimensional theorization of power. He draws on an actor-oriented power perspective in his ideas of one-dimensional and two-dimensional powers. The one-dimensional power perspective refers to actors who exercise power and being able to, for example, negotiate in conflicts. Drawing on Dahl (1961), the perspective asks "who gets what, when, and how" (Akram, Emerson, & Marsh, 2015, p. 346). This perspective was challenged by Bachrach and Baratz (1962), who held that it is essentially also a question of "who gets left out and how." This, then, constitutes Lukes' second dimension of power, namely the power to control political agendas, hence also having the power to exclude

something or the power to *not* act. Finally, Lukes' third dimension of power explains *how* an actor gets another actor to do something he would otherwise not have done by "influencing their wishes" (Svarstad et al., 2018, p. 356). Akram et al. (2015) hold that it is a "preference-shaping" type of power, which means that people, particularly those in vulnerable groups, are not *forced* to act, but are *influenced* in such a way that they choose to do it. This relates to Gramsci's notion of hegemonic power (Gramsci, 1975), and essentially Foucault's notion of governmentality.

Power is key in political ecology studies (Adger et al., 2001; Bryant, 1998; Robbins, 2004). Svarstad et al. (2018) have made an important contribution in outlining power theories in political ecology. They examine three ways in which power is particularly relevant and useful for political ecology studies: *actor-oriented* power perspectives (as outlined above), *neo-Marxist* power perspectives, and *poststructuralist* power perspectives. Marxist power theory would regard human agency as essential in the exercise of power, but simultaneously understand that agency is inherent in social structures embedded largely in history and global political economy. Harvey (2003, 2014) draws on neo-Marxist power perspectives in his notion of "spatial fix" and "accumulation by dispossession," which builds on Marxist critique of capital accumulation and capitalism's inherent drive towards expansion. This notion is relevant for this thesis as my findings point to a certain "spatial fix" of the green economy.

Futhermore, Svarstad et al. (2018) outline three poststructuralist power theories that are of particular interest and importance to political ecology: discursive power, governmentality and biopower. The first two theories are especially relevant for my study (see Sections 3.2 and 3.3). Discourse analysis and discursive power studies in political ecology tend to explore and discuss how power is exercised through "the establishment of discourses on issues and narratives of specific cases in ways that are suitable to themselves" (Svarstad et al., 2018, p. 356). Actors behind such ways of exercising power include companies and environmental non-governmental organizations (NGOs) or policymakers, in addition to governments. This is relevant for this study, as I explore how global institutions and corporations make use of the green economy and exercise discursive power in the interpretation, implementation and institutionalization of the green economy.

Building on these insights, I see power as the ability to influence someone or something, or to exercise agency, alongside and within given social structures (Long, 2001; Lukes, 2005), and I draw particularly on poststructuralist power theories of discursive power and governmentality (Dryzek, 2013; Foucault, 1977, 1991; Li, 2007a).

3.2. Governmentality, green governmentality and environmentality

Mosse (2005) argues that there is an unintended "gap" between theory and practice, and that it is necessary to look at *how* development works rather than *whether*, as well as not whether a project succeeds, but how success is *produced* (Engström & Hajdu, 2018; Ferguson, 1994; Svarstad & Benjaminsen, 2017). According to Li (2007b), power operates at a distance through governmentality. Foucault (1991) saw governmentality as the "conduct of conduct" or a governing technique and tactic (Burchell, Gordon, & Miller, 1991). It can be understood as a way of exercising power, typically in top-down implementation of policies. Furthermore, governmentality is a type of power that shows "how policy regulates social life and makes subjects and citizens, not by repression and overt control, but through a *productive* power that engenders subjectivities and aspirations (Foucault, 1979; Mosse, 2005, p. 6). The green economy can serve as an example of a discourse with such "regulatory" effect, particularly in the Global North and in the context of policymaking.

Foucault developed the concept of governmentality through a series of lectures held in the late 1970s (Burchell et al., 1991; Gordon, 1980). However, broader scholarly interest in the concept remained at a low level until the 1990s.[30] Since then, an impressive body of research has drawn on governmentality across a wide spectrum of disciplines (Bröckling, Krasman, & Lemke, 2011; Dean, 2010; Li, 2007a, 2007b; Walters, 2012). However, it is not an easy task to define governmentality; even Foucault used it in a variety of ways, and the concept has since continued to be developed further. Importantly, the conduct of conduct does not have to be in a government per se, but must be regarded as "something that goes on whenever individuals and groups seek to shape their own conduct or the conduct of others" (Walters,

[30] Scholarly interest in the concept was stronger in France, and much of the reason for the low level of interest in English literature should probably be seen in the light of the rather late translations of many of Foucault's lectures.

2012, p. 11). Moreover, governmentality is not a catch-all term. Rather, it "addresses a zone between these two poles of 'strategic relations' and 'states of domination'" (Walters, 2012, p. 11), which Foucault (1997) called "techniques of government."

Governmentality in environmental governance has been discussed by many scholars under terms such as "green governmentality" (Parr, 2016; Rutherford, 2007), "eco-governmentality" (Valdivia, 2015), and most importantly as "environmentality" (Fletcher, 2017; Luke, 1999). These approaches can shed light on invisible structures in environmental governance or of governing tactics performed in natural resource management. For example, Agrawal (2005) used the example of forest governance and the "production" of forest subjects in India, and stressed that power, knowledge, institutions, and subjectivities are essential for understanding changes in environmental governance. This is relevant also for the variegated institutional and discursive implementations of the green economy. As Hajer (1995, p. 13–14) holds, "environmental conflict has changed. It has become discursive. It no longer focuses on the question of whether there *is* an environmental crisis [or not]; it is essentially about its interpretation" (my emphasis). For this study, elements of green governmentality, such as power, environmental governance and discourses, can help explain how the green economy is being implemented. Furthermore, I argue that a discourse approach is necessary in order to understand the powers behind how policies are formed.

3.3. Narratives, discourses and discourse institutionalization

According to Hajer (1995, p. 44), a discourse is "a specific ensemble of ideas, concepts, and categorizations that are produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities." It is a social construct based on shared assumptions, arguments and statements (Benjaminsen & Svarstad, 2008; Svarstad & Benjaminsen, 2017). A discourse can be seen as "something which produces something else," and can hence not be analyzed in isolation. I see discourses as lenses through which one can view a particular topic (i.e., lenses that shape the way in which various actors see the green economy). Dryzek (2013) holds that environmental issues are interconnected in layers of institutional interplay that are grounded in overall

discourses. Hence, discourses legitimize knowledge, and "coordinate the actions of . . . people and organizations" (Dryzek, 2013, p. 9–10), especially in global politics, power and practices (Hajer, 1995; Foucault, 1972, 1977).

Benjaminsen and Svarstad (2008, p. 51) describe a discourse as a framework for understanding broader and more abstract phenomena, and a narrative as a social construction of a specific case. This is an important distinction. For this thesis, I read narratives as storylines that inform and shape discourses, or, along the lines of institutional bricolage, as threads that are woven together in order to create, explain or justify something. Following Roe (1991, p. 288), development narratives exist "to tell stories or scenarios that simplify the ambiguity" of practitioners, bureaucrats and policymakers, especially in rural development. A narrative is a story that usually has a premise or a conclusion in an argument. Roe (1991) argues that development narratives are not so much concerned with what *should* happen as with what *will* happen. Narratives are meant to provoke feelings and inform the reader in a way that is easy to understand, and the actors in a narrative are often portrayed as heroes, victims and villains. The objective of a narrative is therefore often to persuade the reader to engage with or act upon the presented problem. Roe's concept of narrative policy analysis can be used to explain how certain stories dominate a field and lead to action (through policies) (Roe, 1994). This is relevant for how the green economy translates into policies that build on certain narratives that inform and justify the discourses and their institutionalization, and is especially discussed in Paper 3.

Svarstad et al. (2018, p. 356) define discursive power as being exercised "when actors such as corporations, government agencies or NGOs, produce discourses and manage to get other groups to adopt and contribute to the reproduction of their discourses." I see discursive power as also being exercised when a discourse becomes rooted and adopted to the extent that it has the power to influence policy or actions. Hajer (1995) introduced the concept of discourse institutionalization, which sheds light on how discourses turn into policy and practice. He argues that this is useful for explaining how and when a given discourse is translated into policy and institutional arrangements (Phillips, Lawrence, & Hardy 2004). Some discourses become so powerful that a direct response is the institutionalization of the

discourse through agendas, policies and initiatives that directly aim to attack the problems perceived and the solutions presented by the proponents of the discourse. Hajer (1995) uses the example of acid rain to demonstrate how this environmental discourse became institutionalized through policies rooted in ecological modernization. Thus, discourse institutionalization and governmentality are seen here as analytical tools with which to explain how discourses can have a conscious or un-conscious influence on the implementation of various development schemes (Dean, 2010; Foucault, 1991).

In this study, the case of SAGCOT can serve as an example of discourse institutionalization, as the green economy infiltrated the initiative and changed SAGCOT's premises based on a certain "grabbing green" and greenwashing process. Furthermore, I argue that several examples of discourse institutionalization can be seen through the policies and agendas of the actors and proponents in the new green revolution for Africa and the merging with green economy concepts. The policies are shaped by shared discourses and discursive powers. In this sense, not one, but two global discourses merge and institutionalize under new arrangements, as illustrated by the process of institutional bricolage.

3.4. Institutional bricolage

The original meaning of the word *bricolage* is a construction or creation of something new from a diverse range of available things, regardless of the original purpose of those things (Cleaver, 2012, p. 33). This means making innovations and adapting to new situations taking whichever means there are at hand. The term has been used to explain innovation, creativity and entrepreneurship, and has been more common in art and literature. Levi-Strauss (2004) developed the concept of *intellectual* bricolage to refer to how people draw on existing heterogeneous repertoire and developed their thinking. He regarded a bricoleur as a sort of "amateur handyman" rather than an engineer (Cleaver, 2012, p. 34). Cleaver (2012, p. 34) sees bricolage in a similar way. She defines *institutional* bricolage as "a process in which people consciously and non-consciously draw on existing social formulae . . . to patch or piece

together institutions in response to changing situations" (Cleaver, 2012, p. 45). Furthermore, she argues that

> we are all *bricoleurs* – indeed the conduct of our daily lives consist of much innovation and pragmatic adaptation . . . But *institutional* bricolage implies more than simply making up and making do. Just any old invention and re-combination will not work as, unlike dressing up clothes, institutions must be legitimized and imbued with authority to have any purchase on the job to be done and to endure over time and space (Cleaver, 2012, p. 34).

Cerny (2010, p. 175) uses the bricolage concept at the level of international politics, and argues that the architecture of global institutions is becoming "highly fragmented, disorganized, and tangled," resulting in it being "ineffective, inefficient, and riddled with gaps, and even counterproductive." He continues to claim that this has led to an acceleration of institutional bricolage in politics, resulting in "ad hoc experiments" (Cerny, 2010, p. 177). Carstensen (2011, p. 147) discusses bricolage as an alternative form of agency in ideational or institutional legacy in the field of political science. He argues that agency often happens in the form of bricolage, "where bits and pieces of the existing ideational and institutional legacy are put together in new forms leading to significant political transformation." De Jong (2013, p. 89) uses bricolage to explain China's style of policy transfer, in what he calls "gradualism and eclecticism."

Both Carstensen (2011) and De Jong (2013) draw on institutional bricolage in political science at macro policy levels when explaining political relations and structures. By contrast, Cleaver (2012) uses bricolage from an anthropologist viewpoint, and with power as key in explaining how bricolage processes take place. This is key also for the framing of my study. Importantly, Cleaver (2012, p. 43) holds that institutions are neither inanimate things nor do they have their own agency. Rather, institutions can only exist through people's interaction with each other. Hence, in order to understand how institutions work, it is important to "incorporate awareness of the 'invisible' workings of power" into institutional understanding and analysis (Cleaver, 2012, p. 22). By linking institutional bricolage to governmentality, we can integrate aspects of power into institutional analyses. Governmentality can then provide a better understanding of "agency, practices and mechanisms as shaped by layers of power, operating through a variety of channels" (Cleaver,

2012, p. 42). These processes relate to how institutional bricolage is rooted in the tradition of CI (discussed in Section 3 above) as defined by Cleaver (2012). Cleaver and Whaley (2018) outline how adaptive governance theory would benefit from insights from critical institutionalism, and argue that bricolage is one approach that can explain better how governments adapt and institutions change. They hold that bricolage is useful for understanding the interplay between structure and agency as well as how new institutional and governance arrangements form (Cleaver and Whaley, 2018).

Cleaver (2012) uses institutional bricolage to explain how local communities adjust existing institutional structures and practices in natural resource management. Hence, as a theoretical framework, it can be useful in explaining the relationships between people and natural resources, and the ways in which institutions mediate them in society. Consequently, CI and political ecology can draw insights from each other. In conjunction with the bricolage framing of this study, CI suggests that institutions in natural resource management and environmental governance can be informal and intermittent, and emphasizes a certain messiness in the institutional landscape. Cleaver's work has provided valuable insights to how institutions work in practice and how they benefit some people while they exclude others (Cleaver, 2012). In this study, I apply institutional bricolage to shed light on how policies and institutions form in global environmental governance, and to explore how discourses and global policies transfer and transform on their way to implementation. I examine how the institutionalization of the green economy (and the new green revolution in Africa) manifested through a certain bricolage process by piecing and patching together various policies (and narratives) to create something new (institutions) as a response to new situations (post triple F crisis).

Furthermore, according to Cleaver (2012), institutions are shaped on the basis of past practices and experiences (Douglas, 1987). This process is called path dependency, meaning that institutions (and social relations) are "shaped, rather than determined by, what went before" (Cleaver, 2012, p. 63) Such processes may often lead to policies and institutions remaining unchanged over time, in a sense of "not learning" from past mistakes in policymaking and institutionalization. As Cleaver (2012, p. 144) holds, "shared meanings embedded in policy are shaped by assumptions about the nature of the world and by the

powerful ways in which authoritative knowledge communities frame understandings." This is highly relevant for the findings of this study too. Finally, for this study, institutional bricolage can explain how some selected narratives are emphasized in the green economy discourses, while others are not, as well as how they institutionalize. In this way, discourses provide resources from which bricoleurs draw selected elements of legitimacy for their pieced-together arrangements. This "discursive legitimization" is the most important contribution from institutional bricolage in this study.

3.5. Political ecology

Current debates on green economy implementations and transformations, including scholarly literature that discusses the technologies and practices of green economy implementations, are essentially *apolitical* (Newell, 2015). This means that they do not pay attention to power structures or institutional and policy implications involved in those processes. Political ecology, which emerged largely as a reaction to apolitical ecologies (Robbins, 2012), can therefore offer a useful framework for the study of green economy implementations. Political ecology is concerned with the interaction between people, power and nature, as well as with how power manifests in both material and discursive struggles over the environment. Political ecologists often seek to unmask power structures in such interactions, particularly in the combination of natural resources, power and politics (Adger et al., 2001; Blaikie & Brookfield, 1987; Moseley, 2017; Peet et al., 2011; Svarstad & Benjaminsen, 2017; Svarstad et al., 2018). It is therefore useful as a framework to explain "the social and political conditions surrounding the causes, experiences, and management of environmental problems" (Forsyth, 2003, p. 2). Political ecology seeks to critically see the environment through a contextual approach; it sees the nature as power-laden, and focuses on multilevel connections, structures and actors in the environment and among decision-makers and hierarchies of power (Adger et al., 2001; Robbins, 2012). Stott and Sullivan (2000) and Peet and Watts (1996) emphasize the importance of tracing environmental narratives by identifying power relations and structures, and linking the driving discourses to current environmental policies. Moreover, Stott and Sullivan (2000, p. 2) hold that "the

'science' of environment is socially and politically situated, rather than unambiguous or separable from the subjective location of human perception." Therefore, political ecology is useful in the analysis of multilevel connections in environmental governance (Adger et al., 2001). According to Robbins (2004, p. 12), in sum, political ecology, (1) describes "empirical, research-based explorations to explain linkages in the condition and change of social/ environmental systems, with explicit consideration of relations of power," (2) seeks to find causes rather than symptoms of environmental and social problems, and (3) not only stresses how environmental systems are political in their essence, but also how political systems and economy influence the environment. Thus, political ecology is a suitable theoretical framework for this study, as it can (1) add valuable insights into aspects of power in the dynamics of environmental governance, (2) provide a broader understanding of the relationship between the environment and a broader political economy, and (3) shed light on the relationship between discourse, policy and practice (Adger et al., 2001).

Hall suggests that political ecology can contribute to studies of international agri-food systems through studies of "the global land grab," but also through political ecology's "combination of attentiveness to global forces and processes with a concern for the specificities of the human metabolism with nature and for heterogeneity and complexity" (Hall, 2015, p. 414). As Bergius et al. (2018) note, political ecologists "have expressed worry" about the effects that the green economy might have on smallholders and their livelihoods. More recently, political ecologists have explored the ways in which the green economy manifests in the Global South, and particularly how it interacts with inequalities. This is especially the case for natural resource management and control, conservation, and extraction under the current neoliberalization of nature (Arsel & Büscher 2012; Castree, 2008; Heynen et al., 2007; Peet et al., 2011). For example, Fairhead, Leach, and Scoones (2012) discussed how the green economy has led to green grabbing of land and natural resources in the Global South. They argue that in addition to well-known issues of land-grabbing, where land is appropriated for the sake of food or fuel production, there is also an increasing trend whereby land is being appropriated in "the name of green" under schemes of biodiversity conservation, carbon sequestration, biofuel production, eco-tourism, and other ecosystem services. Such trends include actual land acquisitions, but also the processes

of restructuring regulatory laws or restructuring of authority in the management or control of natural resources. Green economy discourses and practices intersect with various ways in which power relations shape environmental governance and natural resource management (e.g., Adger et al., 2001). These aspects link with the findings of this study.

In this study, I am interested in analyzing the narratives and discourses that drive green economy implementation. While much of the literature is concerned with on-the-ground implications of green economy implementations, I seek to scale the discussion up though the lenses of political ecology in order to understand what *shape* the decision-making processes and policies that ultimately have consequences for the environment and ecology at local levels. Political ecologists are usually interested in unveiling the underlying mechanisms that shape environmental change or natural resource management. Narrative and discourse analysis is therefore a well-suited and common method within political ecological research (Adger et al., 2001; Benjaminsen & Svarstad, 2008; Svarstad, 2005). Since political ecology emerged as a discipline in the 1980s, it has been influenced by critical realism, post-structuralism and participatory development. Together, these frameworks can demonstrate how environmental explanations are "being made" and "the mutual dependency of social values and environmental knowledge" (Forsyth, 2008, p. 1).

To sum up, the theoretical concepts and frameworks described in this section are all useful in the analysis of the findings of this study. The concepts of governmentality and discourse institutionalization are well illustrated by the ways in which green economy policies and discourses transform and institutionalize in practice, under whose mandates, and in which forms. Furthermore, institutional bricolage provides tools for explaining how some concepts, narratives and discourses are selected to inform, drive and legitimize the green economy. Finally, an overall political ecology approach frames this study as a study of global environmental management and discourse, in which power and control and management over natural resources must be emphasized. These theoretical approaches can be grounded in an overall epistemological approach of critical realism, which will be discussed in the next section.

4. RESEARCH APPROACH

The research approach I have followed through this study has been flexible rather than fixed. A flexible approach allows the researcher to reflect upon his or her choices along the way. Data and theory are not treated as separate; rather, the process "involves interconnection and interaction among the different design components" (Maxwell, 2013, p. 3). For this research, I have been able to reconsider theoretical perspectives and research questions along the way as more data has revealed better insights into the material.

Denzin and Lincoln (2018, p. 17–23) identify five phases of the research process: Phase 1 involves reflections on the researcher and his or her role, Phase 2 deals with the theoretical paradigm and perspectives followed, Phase 3 describes the research strategies applied, Phase 4 delves into the details of the methods of data collection and analysis applied, and finally, Phase 5 is concerned with the "art, practices, and politics of interpretation and evaluation." In the following section, I outline and reflect upon the choices I have made in constructing the research design for this thesis.

4.1. Epistemological and ontological position

Theory and epistemological position largely shape how a study is conducted. Epistemology is concerned with questioning and describing how knowledge is formed, and refers to the ways we understand and explain "what we know" (Benton & Craib, 2011). Epistemology is particularly concerned with truth, beliefs and justification. A question of importance is "whether the social world can and should be studied according to the same principles, procedures, and ethos as the natural sciences" (Bryman, 2004, p. 11). By contrast, ontology is the theory of *being*—concerned with "the nature of social entities"—that is; that which exists, or can be said to exist (Bryman, 2004, p. 16). Thus, ontology is concerned with whether social entities "should be considered social constructions built up from the perceptions and actions of social actors" (Bryman, 2004, p. 16). Two subcategories of ontology address the above-mentioned questions: objectivism and constructionism. Objectivism asserts that "social phenomena and their meanings have an existence . . .

independent of social actors," whereas constructionism asserts that "social phenomena and their meanings are continually being accomplished by social actors" (Bryman, 2004, p. 17).

Whereas epistemology naturally is of key importance in research that investigates what is true, what we believe, and how we know what we know, also ontology has become increasingly important within social research, development studies, and a broader political ecology. A number of the groundbreaking research articles and books that spurred environmentalist awakenings in the 1990s and earlier were concerned with how nature and environmental phenomena were framed from the outside and known culturally from the inside (Benjaminsen, 1993; Fairhead & Leach, 1996; Homewood & Rodgers, 1987; Leach & Mearns, 1996). These "divergences regarding the assumed nature of reality" demonstrated that powerful environmental discourses that often disregarded or demonized local use of land and natural resources, could be challenged and deconstructed by bringing in more varied data, usually based on adopting multiple ontological understandings of the phenomena that were studied (Sullivan, 2017, p. 223). Such considerations have been important also in political ecology research (e.g., Adger et al., 2001; Bryant & Bailey, 1997; Stott & Sullivan, 2000). "Shifting conditions" of what is *true* is affirmed in discourses and assumptions and the very nature of existence (Foucault, 1970; Sullivan, 2017). Indeed, Foucault's (1970) notion of *episteme* must be regarded as part of an ontological grounding, as this "self-reinforcing grid of assumed or a priori knowledge of reality" (Sullivan, 2017, p. 223) influences interactions and particularly the formation of discourses.

My research for this thesis was conducted with the ontological perspective that a reality exists independent of our beliefs about it or views on it. A Foucauldian discourse framing is useful in explaining power relations within this "existing" world, and political ecology reflects an engagement with *political* constructions in environmental discourses (Forsyth, 2001; Sullivan, 2017). Furthermore, a critical realist perspective can be useful in the study of underlying mechanisms within discourses and constructed realities, as well as constructed knowledge. A useful way of combining ontology and epistemology in this way is found in critical realism.

4.1.1. Critical realism

In its simplest form, critical realism is "concerned with the nature of causation, agency, structure, and relations, and the implicit or explicit ontologies we are operating with" (Archer et al., 2016). Critical realism was developed in the 1970s as a proper post-positivist philosophy of science (Archer et al., 2016). While there are many points of departure and approaches within critical realism, the first and most influential work was done by British philosopher Roy Bhaskar. Bhaskar started his work on critical realism in the 1970s, which means this philosophy of science is rather new (Collier, 1994). A central goal for Bhaskar was to produce a philosophy that would be applicable in people's everyday life and relevant for research *practice*. Bhaskar's conclusions were therefore mainly located within ontology, while many of his arguments were epistemological (Collier, 1994). Critical realism emphasizes the relationship between the observed and the non-observed, and seeks to describe an interface between the natural and social worlds. Critical realism has been regarded "a realist epistemology," hence combining the two (Bryman, 2004, p. 538). Thus, Bhaskar's work has paved the way for cross-disciplinary research, and established a philosophy of science that can be applied in both natural and social sciences. It is indeed more a philosophy *for* science than a philosophy *of* science.

Critical realism holds that "there is a world independent of our beliefs about it," and one should be concerned with investigating the underlying structures of that world (Benton & Craib, 2011, p. 382). This means that the social world only can be understood if people first understand the structures that generate these unobservable events. Therefore, critical realism shares with positivism an interest in the objective world, but differs from it in claiming that studies of observable phenomena often are too superficial, and that they ignore the non-observable mechanisms that *produce* those phenomena (Alveson & Sköldberg, 2008). The notion of *mechanisms* is therefore important in critical realism, and critical realists are usually preoccupied with an image of the empirical reality as *stratified*, meaning that the empirical reality consists of layers that go deeper than the surface. Critical realism holds that while our senses can tell us something about what is real and not (observed material matters), we cannot always trust that our instincts or senses reflect reality without faults (e.g., as in optical illusions).

Linked to this, and central to Bhaskar's work, is the idea of the three domains of reality (Bhaskar, 1975; Forsyth, 2003): (1) the "real" world of mechanisms, powers and tendencies, which science seeks to recover, (2) "the "actual" level of flows, or sequences of events, which may be produced under experimental conditions, or occur in more complex and less predictable "conjunctures" outside the laboratory," and (3) the "empirical" level of observed events (Alveson & Sköldberg, 2008; Benton & Craib, 2011, p. 125–126). The "real" refers to the underlying mechanisms that are part of the world, the "actual" refers to the observable, and the "empirical" relates to human perceptions about the word, including both the real *and* the actual. Therefore, critical realists also accept what we cannot observe as real. Something is real if it has the potential to affect something else. This means, not only is the empirical reality material, but also that ideas and discourses are real.

Critical realism is useful for the study of discourses, power structures, actors, and agency. It provides a framework for the analysis of mechanisms that shape unobservable phenomena, and the layers in which such phenomena are grounded. Moreover, the aim of revealing the mechanisms that lead to the production of policies that benefit the few is relevant to the political ecology framing of this study. Furthermore, critical realism interacts well with governmentality, which similarly seeks to explain how something is shaped by something else. My acknowledgment of the aforementioned points proved useful when analyzing the data for this study.

4.2. Methods of data collection and analysis

I have applied a qualitative methodological approach in this study. Qualitative methods are useful in the study of processes, structures, meanings, and influences of certain phenomena within specific contexts (Maxwell, 2013). Furthermore, qualitative methods aim not at precise measurements, but at "a holistic understanding of complex realities and processes where even the questions and hypotheses emerge cumulatively as the investigation progresses" (Mayoux, 2006, p. 118). Qualitative studies usually follow an inductive method of data collection, whereby theory is an outcome of research, and is more concerned with words and the content of the data, rather than the quantity of the data collected (Bryman,

2004). For this study, I have followed the research design of a case study, and conducted qualitative interviews, focus groups, document analysis, event ethnography, and discourse analysis. I elaborate on these choices in the following section.

4.2.1. Case study design

Schwandt and Gates state:

> Social science methodology is the study of how a particular kind of investigation should proceed. It is the philosophical examination of suppositions and principles and the resultant justification of methods and techniques associated with a specific approach to investigating the social world. Case study methodology is the examination of these matters (Schwandt & Gates, 2018, p. 341).

A case study is "the detailed examination of an aspect of a historical episode to develop or test historical explanations that may be generalizable to other events" (George & Bennett, 2005, p. 5). Case studies can be useful in order to explore causal mechanisms and for the assessment of complex causal relations. In qualitative case studies, a researcher has *few* cases with many variables instead of many cases with few variables, which is more common in quantitative research. Following Maxwell (2013, p. 79), a case study does not aim to generalize empirically, but to develop an "adequate description, interpretation, and explanation" of the case in question. While case studies may convey potential problems relating to external generalization, they are well suited for conceptual validity and for deriving new hypotheses (see more about validity in Section 4.3.3). In a case study, a *case* is "an instance, incident, or unit of something and can be anything" (Schwandt & Gates 2018, p. 341). C. Lund holds that "a case is an edited chunk of empirical reality," hence, it is not natural, but a *mental* construct "aimed at organizing knowledge about reality in a manageable way" (Lund, 2014, p. 224). He emphasizes the need to explain what the case is a case *of*, which essentially lies outside the data itself.

This study is a case of green economy implementation in the Global South. By analyzing the overall complexities of a global case, such as "the green economy," a holistic case study design has been used (Yin, 2014). The case investigated in this research also includes a subunit of analysis, an "embedded case" (Yin, 2014), which is the case of SAGCOT. I have

conducted research seeking to provide an overall understanding of a complex matter at multilayered and multilevel scales. The case study design is not a method, but a design chosen to be followed, whereas a research method has to be selected to collect the data. The case study design often concurs with qualitative interviews as research method.

4.2.2. Qualitative interviews

Qualitative methods for data collection often rest on conducting interviews. The aim of an interview is to understand the world or the topic in case from the subject's point of view. More specifically, qualitative interviews have the "purpose of obtaining descriptions of the life world of the interviewee in order to interpret the meaning of the described phenomena" (Brinkmann & Kvale, 2015, p. 6). However, a qualitative interview involves more than a conversation, as Brinkmann and Kvale (2015, p. 4) point out; "it is an inter-view, where knowledge is constructed in the inter-action between the interviewer and the interviewee." Furthermore, a research interview is not a natural form of human interaction; rather, it is a social construction of a communication process (Briggs, 2007; Brinkmann & Kvale, 2015), whereby knowledge is constructed.

Interviews can be carried out in various ways, most commonly through unstructured, semi-structured or structured interviews. However, according to Brinkmann (2018, p. 578), there is not such a thing as a completely unstructured or a completely structured interview, as the conversation will always take unforeseen turns, "utterances that spill beyond the structure," or the interviewer always will have *some* idea about what topics that should be covered. Semi-structured interviews are therefore usually preferred and commonly used in human and social research (Bryman, 2004). Such interviews are useful for knowledge production because they allow much more leeway for sliding off track, or going back and forth between whichever topics that come up or that are perceived as important by both parties (Brinkmann, 2018). In this way, the interviewer becomes more participatory in the construction of the data (i.e., knowledge).

Semi-structured interviews

I conducted primarily semi-structured and in-depth interviews, as well as some unstructured interviews. Since I interviewed many different stakeholders and actors at different levels and with different roles—ranging from senior government or policy representatives working in global organizations and business sector CEOs, to small-scale farmers at local levels—it was necessary to apply multiple forms of interviews under multiple settings.

Semi-structured and in-depth interviews were particularly useful with key informants at organizational, national and global levels. The purpose of a semi-structured interview is to obtain rich, in-depth and detailed answers on a certain topic. Semi-structured interviews often allow for more interest in the informant's viewpoints, and anecdotes and "side stories" are often encouraged because they give insights into what the interviewee thinks is important, and provide an understanding of what he or she emphasizes within the topic of discussion (Brinkmann, 2018; Willis, 2006). Thus, semi-structured interviews are flexible and open-ended, and usually guided by a list of topics that the interviewer would like to cover, rather than by pre-set questions. Through such interviews, I was able to adjust my questions as my knowledge and understanding of the topic increased during the interview, or to continue down another "route" if the informant turned out to have insights into other important issues than the one I had meant to cover during the interview. Such flexibility is a strength of semi-structured interviews.

In-depth interviewing makes it possible for the informant to elaborate on his or her experience and views on the topic, of which the gathered data could be compared with, and complement, other data. I interviewed 75 individual informants between 2015 and 2017, primarily elite and key informants (see Annex 1). Some informants were interviewed several times, typically in early the stages of data collection and during the final stages of data collection. This flexibility allowed me to gain a better understanding of certain matters. Most of the interviews were held with CEOs, various board members, directors, government authorities, investors, representatives of global institutions working within the nexus of development, environment and agriculture—particularly the green economy and the new

green revolution for Africa—and representatives of NGOs and research institutes. The interviews usually lasted for about one hour, although some were considerably longer (up to three hours) and some were shorter (20–30 minutes). All interviews were conducted with informed consent (see Section 4.3.1). I carried out purposeful sampling for these interviews. In qualitative research, it is often more useful to carry out purposeful sampling rather than random (probability) sampling (Maxwell, 2013). The term purposeful indicates that the selection is done on the basis of on certain criteria, not randomly, and not for reasons of convenient access to informants (such as in convenience sampling). According to Maxwell (2013, p. 97), purposeful sampling is a strategy whereby "particular settings, persons, or activities are selected deliberately to provide information that is particularly relevant to your questions and goals, and that can't be gotten as well from other choices." Purposeful sampling was useful for my research because it (1) ensured representativeness, (2) enabled me to capture the heterogeneity within the sample selection, (3) made it possible to select informants who could provide key information, and (4) made it possible to generate a comparison between different key stakeholders who had been purposefully selected (Maxwell, 2013). I also conducted snowball sampling, which allowed me to contact informants based on my acquaintances and the help of informants in identifying my needs and getting in touch with people who could contribute to my research (Bryman, 2004). Although snowball sampling makes generalization difficult, it is widely used in qualitative research, as it is time-efficient and makes it easier to get in touch with the "right" people.

Unstructured interviews

I held a large number of unstructured interviews and conversations (i.e., not planned interactions) in informal settings. When a setting is informal, it can be easier to gain information through a more unstructured conversation. In such cases, an interview will not be experienced as formal by the interviewee, and he or she may consciously or not consciously feel it is easier to share his or her perceptions on certain topics that could otherwise be more difficult or stressful to talk about in a more formal setting. I spent a lot of time waiting in anterooms and lobbies, where I often meet employees or visitors and was

able to chat with them.[31] The information shared on such occasions, must not be underestimated. As Maxwell (2013, p. 88) points out, "hanging out, casual conversations, and incidental observations" are just as important as formal interviews in data collection. This resonates with the iterative approach of the research design followed in this study. Furthermore, on some occasions, I accompanied key stakeholders on trips, including "in the field" and was able to interact with people who shared their interests and knowledge, and chatted about related topics or less related topics. Those meetings can hardly be described as interviews, but nonetheless they produced valuable data that contributed to my overall understanding of the topic. As Willis (2006) argues, unstructured interviews can be of particular value when one is interested in understanding "key issues" within a group, such as in my case, and trying to gain a sense of common perceptions and the shared general viewpoints towards a particular theme, such as during conferences and seminars (see more about this in Section 4.2.3). Furthermore, unstructured interviews can be particularly useful for collecting data for discourse analysis (Brinkmann & Kvale, 2015), and were an integral part of my event ethnography approach (see Section 4.2.3). My sampling for unstructured interviews was usually random, but both purposeful sampling and snowball sampling methods were applied. However, unstructured interviews were usually not planned in advance, although when attending various events I gained a sense of who I should aim to talk to and which topics I wanted to learn more about, or I had planned this in advance by looking through programs and participant lists.

In order to access the "right" people at the "right" places and at the "right" times, I was dependent on networking and obtaining contact information through acquaintances. I had a few contacts at the University of Dar es Salaam and Sokoine University of Agriculture, who were kind and helpful in providing me with further contacts. Furthermore, a few key informants were extremely helpful in opening doors and "snowballing" my data collection in the right direction. Such "door-openers" are usually of crucial importance when doing qualitative research, particularly in a case study such as the one I have undertaken. I also had a research assistant and interpreter during parts of my data collection (discussed further in

[31] These conversations are not listed in Annex 1.

Section 4.3.4). He was very helpful and used his network and channels of communication to gain access to some contacts and informants.

However, I mainly depended on making contact with people by visiting offices and knocking on doors myself. This was particularly necessary in the Tanzanian government system, as it proved difficult to establish contact via telephone or e-mail. On such occasions, I usually ended up conducting interviews on the same day or making future appointments. Of course, some people were harder to make contact with than were others, regardless of which methods I used to try to approach them (see Section 4.3.5).

Fieldwork and informants

Long-term in-depth ethnographic research was neither feasible nor necessary for this study. Since only one of my three research questions was concerned with the SAGCOT initiative in Tanzania, it was just as important to carry out data collection elsewhere, both geographically and topic-wise. I carried out five field visits to Tanzania, comprising a total of 13 weeks between 2015 and 2017. Furthermore, many interviews were conducted in Norway, since many of the contemporary or former involved partners in SAGCOT were based there. The majority of my informants represented the general global green economy community and various institutions working with current topics within environment, agriculture and development. Apart from interviews held in Tanzania and Norway, some interviews were held during conferences (see Section 4.2.3), or via Skype or e-mail.

Field visits and data collection in Tanzania formed the basis for answering mainly Research Question 3, but also for answering Research Questions 1 and 2, as many informants in the sector were based in Tanzania, or interviews conducted there contributed to understanding also issues outside the SAGCOT case. For Research Questions 1 and 2, in addition to interviews in Tanzania and elsewhere, data collection rested on methods of document analysis, policy review, event ethnography and discourse analysis, all which are elaborated on in Sections 4.2.3, 4.2.4 and 4.2.6.

Most of the formal interviews were recorded (but none of the informal interviews), and I took notes every time, either during the interview, or if that was inappropriate for the setting, I made a brief voice recording or wrote a note shortly afterwards summing up the main points from the conversation or observation made. Usually, recording interviews was not a problem, as my topic was not sensitive or controversial, and most of my informants were representatives of NGOs, companies, government authorities, private sector entities, or global level institutions. While it can be expected that such actors would understand what the use of a recorder implies, I always offered the informants anonymity and assurance that the material would only be used for research purposes. Some information might have been lost due to the restraints that a recorder puts on the interview situation. Many informants may feel less free to share their thoughts when they are being recorded. However, I have no reason to believe this was a serious problem in my research. In fact, some of my informants shared classified information with me on tape, telling me and trusting me not to quote it. Only during one interview, did the informant (a high-level key informant) tell me he would share more information if I turned off the recorder (which I did). Keeping such an open tone established a sense of trust between informants and me.

Only exceptionally was the use of an interpreter required in interviews. However, I used an interpreter for local level interviews with some representatives from district authorities, for village interviews and focus groups. (For further information about the transcription and analysis of the recorded data, as well as on the use of an interpreter, see Sections 4.2.5 and 4.3.4).

Focus groups

I carried out four focus group interviews with farmers, with a total of 60 participants. The interviews were held in Bagamoyo District, in the villages of Bozi, Gama Makaani and Number Nne,[32] which are villages within the claimed project boundary of the Razaba Ranch, an area allocated by the large-scale sugar plantation project EcoEnergy that was later shut

[32] "Number Nne" ('No. 4') is the Swahili name of the village. Several villages in the area are known only by a number, based on the order of their location when driving along the main road.

down (see Section 2.3.1). A focus group interview is a "form of group interview in which . . . there is an emphasis in the questioning on a particular fairly tightly defined topic; and the emphasis is upon interaction within the group and the joint construction of meaning" (Bryman, 2004, p. 539). Focus groups proved useful for me when visiting and talking to members of local communities. Since I was interested in matters that were already well-known and much discussed in the community, the focus group interviews were useful for gathering collective knowledge and information. The conversations tended to be more relaxed in groups consisting of members of the same community. Therefore, when a researcher is aiming for shared perceptions on a particular case, focus groups may be useful. During one-to-one interviews on a particular topic, especially a controversial or much-debated topic, informants may be reluctant to share strong independent views. However, in a group, more people are likely to engage in the conversations, their viewpoints will become clearer, and often there will be a sense of a common perception on a topic. Focus group interviews are often useful to gather a lot of different viewpoints for a case study, but it is just as important to gain a sense of the arguments used and the viewpoints held, and the strength of the participants' viewpoints (Brinkmann & Kvale, 2015, p. 175). Debates may become heated, in which case the researcher can gain a lot information from being an observer.

However, focus group interviews can also have the opposite effect, as discussions are usually led and dominated by "strong" members of the group or the community, typically those who speak loudest or gain most respect in a group. For example, if a village leader is present, other members of the community may be reluctant to speak up, especially if their views conflict with the majority's view. In such cases, focus groups can "steer" the discussion also in somewhat artificial directions, emphasizing views and perceptions that appear much stronger than they are in reality. In some settings, women typically do not speak up, or do not even attend. However, that was not the case in my four focus groups, as two of them were dominated by women, and all focus groups had participants of both genders and across different age groups. The four focus groups interviews that I held were dominated by two or three "strong" participants who led the discussions, 3–4 who contributed occasionally, and the remaining participants (8–9) usually just nodded their agreement.

Focus groups were useful also because I wanted quick access to information about a series of events that was not at the core of my research topic. When several members of the community gathered to discuss these topics, I could listen to their discussions about the details of the project, and hear them reach conclusion together, before they presented me with an answer. It was efficient and useful to collect information in that way, and I could later compare the information with other data, such as data gathered from project documents. During the focus group interviews, I also did some mapping and made observations as I traveled through areas relevant to the topic I was investigating.

It is important to note that I conducted focus group interviews and village level interviews in an area affected by a project that was later shut down. When I started my research, I directed quite a lot of my attention towards the EcoEnergy sugar plantation project in Bagamoyo, since this was one of SAGCOT's two flagship projects. Later, SAGCOT turned to other projects instead (as mentioned in Section 2.3.1), and after my data collection had ended, EcoEnergy was discontinued, for several reasons. However, the data collected there helped me to gain an understanding of how SAGCOT collaborates with regional and district authorities, how it is perceived among local communities and district authorities, and how it aims to support implementations in practice. Furthermore, I was interested in unveiling the processes of project implementation, policy institutionalization, and how green policies became evident in SAGCOT. For that purpose, the EcoEnergy case was very valuable. The collected data from this case are therefore still of high relevance.

4.2.3. Event ethnography and participatory observation

In addition to interviews and focus groups, I used event ethnography. According to Campbell, Corson, Gray, MacDonald, and Brosius (2014), the method (which is usually called collaborative event ethnography) implies researching institutional or organizational meetings in order to assess how policies are being made (Brosius & Campbell, 2010). Campbell et al. (2014, p. 1) state that event ethnography "combines and modifies rapid ethnographic assessment, team ethnography, and institutional or organizational ethnography to account for the untraditional nature of meetings as field sites." Büscher

(2014) furthermore holds that event ethnography is a "powerful new methodological tool to study global environmental politics and governance in practice." In particular, he argues, it is a good method for "tapping into" diffused neoliberal power, but also more structural power. The method can be useful for studying global meetings and in interactions with policymakers within the field of expertise under study. As Campbell et al. (2014, p. 3) emphasize, global environmental governance is defined by multiscalar linkages and levels, and with a myriad of actors:

> Global environmental meetings are moments when diverse actors, normally dispersed in time and space, come together to produce – through decisions, interpersonal relationships, informal exchange, etc. – environmental governance. Meetings become spectacles, orchestrated to enact political strategies in from of an audience.

In such spaces, researchers can study how policies are being made, which buzzwords dominate the discussions and plenary sessions, who talks loudest, and which key take-home messages the meetings produce. For this study, I employed event ethnography through participation in global green economy conferences, by listening to and analyzing the main messages and topics for debate and discussion, and by interacting with representatives, many of whom were high-level key stakeholders.

A large amount of data can be gathered merely by being a member of the audience at conferences. In my case, "mingling" with conference participants, chatting in hallways during coffee breaks, being a fly on the wall at the exit after important keynote speeches, and having brief chats on shuttle bus trips and during dinners, proved of great value for my data collection.

I used event ethnography at four international policy conferences and one seminar. Three were high-level global conferences with a broad audience and the numbers of participants ranged from 110 to 1200, the annual SAGCOT forum had ca. 500 participants, and the final event was an international, but rather low-key seminar in Oslo, with ca. 400 participants. Since participants for two of the conferences (in Jeju) to some extent overlapped, I estimate that the total number of participants for the events investigated under event ethnography for this study was ca. 2500. The events were:

- **1st Global Forum on Green Economy Learning**, Paris, 16–18 December 2015, organized by the Partnership for Action on Green Economy (PAGE), the OECD, the Green Growth Knowledge Platform (GGKP) and UNESCO-UNEVOC, which is UNESCO's International Centre for Technical and Vocational Education and Training. Approximate number of participants: 110.
- **Fourth Green Growth Knowledge Platform Annual Conference (2016)**, Jeju, South Korea, 6–7 September 2016, entitled Transforming Development through Inclusive Green Growth, organized by GGKP and the Seoul-based Global Green Growth Institute (GGGI), with the following partners: the Environment for Development Initiative (EfD), the OECD, UNEP, and the World Bank. The conference was part of the **Global Green Growth Week** 5–9 September 2016, Jeju, South Korea. Approximate number of participants: 1200
- **Global Green Growth Summit**, Jeju, South Korea, 8 September 2016, entitled Green Finance Barriers, Successes and Solutions, organized by the GGGI. The conference was part of the **Global Green Growth Week** 5–9 September 2016, Jeju, South Korea. Approximate number of participants: 1200
- **Annual Forum of the Southern Agricultural Growth Corridor of Tanzania (SAGCOT)**, Dar es Salaam, Tanzania, 7–10 March 2017. Organized by SAGCOT. Approximate number of participants: 500.
- **Green Growth Innovation**, one-day seminar. Organized by the Norwegian Business School (BI), Oslo, 11 May 2017. Approximate number of participants: 400.

The first three conferences were attended on the basis of their relevance and the convenience of their timing. I had to apply for admission for the OECD conference, which was granted, while the second and third conferences were open (but with restrictions to "external" participants). All three conferences were particularly useful for Research Questions 1 and 2. The fourth conference was especially useful for Research Question 3. It was officially open for partners and interested actors such as private sector representatives and academics. SAGCOT has repeatedly encouraged more openness with researchers, also at this conference. However, simultaneously, it has blocked out all inquiries from researchers. I was admitted to the conference on the basis of a long-standing and good relationship with

two key SAGCOT employees, and I was able to take two colleagues with me. Other than us, there were few external participants. The fifth event, the seminar in Oslo, was attended due to its convenient timing and location. In addition to these five events, I registered and purchased tickets for the World Green Economy Summit (WGES) in Dubai in October 2016. Unforeseen personal circumstances prevented me from attending, but I was able to follow the conference online, since most written material was made available, and all the big plenary sessions were live-streamed. Hence, the information obtained from this conference also formed part of my data.

Three big institutions have been important in event ethnography data collection, namely PAGE, GGGI and GGKP. Their representatives were very evident at most of the conferences I attended. Furthermore, a few representatives from these institutions have been key informants for my data collection. A short introduction to them is therefore appropriate:

The Partnership for Action on Green Economy (PAGE) was established in 2013, as a direct response to the Rio+20 call for action and support to countries "wishing to embark on greener and more inclusive growth trajectories" (PAGE, n.d.).[33] PAGE follows a rather technical green economy trajectory, with a focus on green transitions, infrastructure and green jobs. The partnership comprises five UN agencies, whose "mandates, expertises and networks" are meant to "offer integrated and holistic support" to countries that wish to implement a green economy (PAGE, n.d.).[34] Thus, PAGE represents a mechanism to coordinate the UN's action on a green economy. The PAGE secretariat is located at UNEP's offices in Geneva, while the PAGE steering committee and the PAGE management board consists of directors and representatives of governments and institutions that provide financial support to PAGE. However, the actual outreach from PAGE is done through the "technical team," which consists of staff members from all participating UN organizations. PAGE's work is done through the UN member organizations. PAGE is funded by the EU,

[33] As stated earlier, Tanzania is not a partner country of PAGE.
[34] The UN agencies are: the UN Environment Programme (UNEP), the International Labour Organization (ILO), the UN Development Programme (UNDP), the UN Industrial Development Organization (UNIDO), and the UN Institute for Training and Research (UNITAR).

Norway, Sweden, Finland, Germany, South Korea, the United Arab Emirates, and Switzerland.

Another leader in the green economy landscape is the Global Green Growth Institute (GGGI), based in Seoul. GGGI is "a treaty-based international, inter-governmental organization dedicated to supporting and promoting strong, inclusive and sustainable economic growth in developing countries and emerging economies" (GGGI, n.d.). The GGGI is demand-driven, and supports its member countries in achieving the commitments under the Paris Climate Agreement as well as its targets under the Sustainable Development Goals (SDG).[35] The GGGI focuses on technical assistance and the mobilization of finance for "climate resilient projects," primarily in water and sanitation, sustainable energy, sustainable landscapes, and green cities. According to the GGGI, it is "leading the implementation of a new development paradigm, focused on a model of economic growth that is both environmentally sustainable and socially inclusive: green growth" (GGGI, n.d.).

Lastly, the Green Growth Knowledge Platform (GGKP) is a resource bank that collects published documents, policy reports and research on various green economy initiatives from a variety of sources. The GGKP's aim is to be a platform and network that offers free access to existing research and policy within green growth. It also has good overviews of green economy events, as well as a rich data bank on green country profiles. According to the GGKP, it is "a global network of international organizations and experts that identifies and addresses major knowledge gaps in green growth theory and practice" (GGKP n.d.). The GGKP was established in 2012, and is led by the GGGI, the OECD, UNEP, UNIDO, and the World Bank. It receives funding from selected European governments (GGKP, n.d.) and has a small secretariat in Geneva.

In addition to collecting data through event ethnography and interviews at these conferences and seminars, some of the key informants whom I interviewed also gave talks and speeches and participated in various plenary sessions at the conferences. This was useful for triangulation of data, but more importantly it was extremely valuable for me to be able to

[35] Partner countries include funding countries as well as member countries who receive support from GGGI Tanzania is not a partner country of the GGGI (for details, see www.gggi.org/partners).

observe how the same information, statements or arguments were shared or discussed under different circumstances (e.g. in individual interviews vs. roundtable discussions vs. keynote speeches by the same informant), and through different channels and in different fora with different audiences and purposes.

Additionally, as part of the event ethnography method, I undertook participatory observation at events. Not only was I able to participate in events as a member of the audience together with other people interested in the same topics from varying backgrounds, but also I was able to participate in group discussions, seminars, trips, and dinners. One of the events not listed above, is *Nane Nane* ("eight eight," referring to August 8), which is the annual farmers' day in Tanzania. In 2015, SAGCOT facilitated my participation in the *Nane Nane* in Mbeya. The event and exhibition probably hosted hundreds of farmers and suppliers from the agro-industry, with whom I was able to interact. More importantly, I spent the day together with SAGCOT staff, talking with various partners who were representatives and chatting with staff and visitors. This participatory observation allowed me to gain a brief insight into the day-to-day engagements and work that SAGCOT's staff deal with, as well as to talk both formally and informally to many of its staff members and partner companies. I acquired a sense of what farmers that visited *Nane Nane* were most interested in, as well as which products and policies were emphasized and advertised throughout the event.

4.2.4. Documents, policy review and social media

In addition to qualitative interviewing, I collected a substantial amount of documents as part of my research for this study. Typically, they included policy frameworks and green economy strategies produced by different actors. Documents can afford insights into matters that are not observable, and for this study documents were particularly useful since two of my research questions are rather macro-level. The word "documents" can imply a wide range of sources (Bryman, 2004). Primarily, I performed a substantial review of public policy documents. The material was of core importance in my research. I collected official documents on investments and projects from the Government of Tanzania. I also gained

access to project proposals and several MoUs (Memoranda of Understanding) in project planning, development aid and various partner collaborations. Official documents from both public and private sources are often available online for reasons of transparency. Reading documents from one organization before interviewing a representative from that organization allowed me to prepare more thoroughly for the interview. Moreover, minutes from meetings in which participants were listed were useful for snowballing purposes. To some extent, I also accessed unofficial documents through my informants.

In addition to public and private "formal" documents, I collected various "informal" documents that were just as important. As Peräkylä and Ruusuvuori (2018) hold, "naturally occurring" materials such as pamphlets, posters, advertisements and newspapers can be of great value for data collection and analysis. For this study, I collected such excerpts and examples, which complemented other data material. I particularly gained insights and knowledge from pamphlets and information brochures published or handed out by SAGCOT, but also by many companies and big actors in the green economy network, as well as from newspapers. I acquired a substantial collection of pamphlets during the conferences and events in which I participated (see Section 4.2.3). Such material is especially useful for discourse analysis, and in my case it allowed me to identify key messages, and gain an overview of what the actors aimed to communicate. This was particularly useful for analyzing regularities in statements as part of my discourse analysis (see Section 4.2.6). Documents were also useful for triangulation purposes.

There is a tremendous amount of published documents on the green economy, from a very broad range of actors, institutions, governments, companies, and organizations. Consequently, during the course of my research, I had to make a lot of choices about what to include and not include. Early on in my project, I decided to focus on the three big international organizations that predominantly have been in charge of developing the global framework for the green economy, namely UNEP, the OECD and the World Bank. I therefore focused on the material published by these organizations. I also focused a lot of attention on the WEF, since this organization has been core in developing policy frameworks that combine the new green revolution in Africa with the green economy. Additionally, I relied on documents from PAGE and GGGI, as well as a myriad of other sources to a lesser extent.

The ability to interact with and follow politicians, activists, institutions, companies, key persons, and other stakeholders in social media was important for my research. I randomly observed, interacted with and followed key stakeholders and key actors involved in the green economy and the new green revolution in Africa, including SAGCOT, on Facebook and Twitter, as well as through other online sources such as newspapers. This enabled me to take part in and gain insights from the debate and development within the field across space and time. It was particularly useful for the purpose of identifying main messages, and I often found discrepancies in statements proclaimed on Twitter as opposed to, for example, the much more complicated policy documents that formed the basis for those statements. This was useful for discourse analysis.

4.2.5. Data analysis

In qualitative research, the distinction between data collection and analysis (and writing) is somewhat fluid. Rather than being separate processes, data collection and data analysis often take place simultaneously and are closely interlinked. According to Maxwell (2013, p. 104), it is a big mistake to let field notes and collected material pile up unanalyzed, as this makes analysis and writing much harder. Therefore, qualitative data analysis is often highly *iterative*, as was the case during my research. This means that data collection and analysis go hand in hand and repeatedly refer back to each other (Bryman, 2004, p. 401). According to Maxwell (2013, p. 2), a qualitative research design is usually more flexible rather than fixed, and should aim to be reflexive through all stages of a project. Maxwell (2013) proposes that qualitative research should follow an interactive model, where the research questions are at the center, and where goals, conceptual framework, methods, and validity are "satellites" outside, comprising one's research design. The researcher will constantly move back and forth between the center and the satellites.

I my case, the above-described process was especially evident, since I traveled back and forth to the "field" (or rather several "fields"). While many development researchers carry out long-term ethnographic fieldwork, I made shorter, intensive field visits to Tanzania, and collected data and held other interviews also in between these trips. The inability to stay in

the field for long periods of time can have a downside, such as having to reconnect with one's network of contacts or not being as flexible about the timing of interviews. However, I found it useful to *leave* the field with my head and notebook full, as this allowed me to analyze along the way. Having some distance was useful in this sense, as I could "wind up" preliminary findings and look more into which directions I would like my research to go. Moreover, by spreading my visits to Tanzania over two years (April 2015 to March 2017), I was able to follow the development of SAGCOT over time. A lot changed during those two years, and I would not have been able to see the changes as clearly if, for example, had I stayed in Tanzania for six full months during the first year of my data collection. Furthermore, it was useful to work with my research questions simultaneously, as this allowed me to have a better perspective, and helped me understand connections along the way until the very end. It was, for example, a deliberate choice to write Paper 3 last, as categorizing discourses and analyzing them was ongoing in the back of my head from the very start of data collection.

During fieldwork, both in Tanzania and at all events, as well as when conducting interviews in Norway, I kept rich field notes. I took notes while interviewing, almost without exception. For the less structured interviews, observations and other methods of data collection, I found time afterwards to write a summary of the information I had collected, as well as some brief thoughts about it.

In addition to field notes and interview transcriptions, I kept memo books for the development of the research project. Memos are often used by researchers as a tool to help them to "crystallize ideas and not to lose track of their thinking on various topics" (Bryman, 2004, p. 405). In exactly the same way, memos were valuable during my research. Furthermore, memos are useful as analytical, conceptual and theoretical notes, and through memo writing, "researchers gain analytic distance from data and create an intellectual workspace for documenting their analysis" (Charmaz, Thornberg, & Keane, 2018, p. 429). Memos helped me structure overall thoughts and notes throughout the data collection and analysis process. I kept information in my memo books about which decisions I made along the way and *why* I made them. It was a process of "thinking out loud" along the way. I kept my current memo book with me wherever I went. In the memo books, I created matrices of findings, drew Venn diagrams, sketches, maps, and timelines, recorded "brainstormings,"

and employed other visual techniques that proved very helpful. I color-coded theories with findings, and used tables to identify research gaps. The continuous work functioned as a key data analysis tool for me. A few examples of such memos are attached in Annex 3.

As outlined above in Section 4.2.2, I recorded most interviews. When I was doing fieldwork and recording a lot of interviews during the daytime, I aimed at transcribing at least a few interviews every evening. However, transcribing is extremely time-consuming, so I had to spend several months on the task retrospectively. I transcribed all recordings myself and used only standard computer software (VLC media player and Microsoft Word). For the purpose of discourse analysis (see Section 4.2.6), I usually transcribed and took notes of everything in the original recording, including details such as silence, hesitance or tone used when talking about something specific.

Additionally, I recorded most sessions I attended during events and conferences. However, in roundtable discussions, several people talked interchangeably and were only introduced in the beginning of the session, so it was difficult to know who the speaker was when listening to the recording. In some sessions, there were also quite lively discussions with questions and contributions from the audience. This was difficult to transcribe. Although the sound quality of the recordings was surprisingly good, given that the recorder was usually placed on my lap among the audience, it was difficult to identify who the different speakers were. Transcribing the recordings of those sessions was time-consuming. Usually, to ease the work, I took notes simultaneously as an assisting tool, or I looked at conference programs to remember who the speakers were. For most of the event recordings, I did not transcribe word-by-word; rather, I focused on statements and quotes, and most importantly the key messages and overall topic of the event. Most sessions at events were not recorded with informed consent, since it would have been impossible to obtain it in advance from all participants, including the members of the audience, who usually participated (Homan, 1991). However, almost all of the sessions were open to the public, and accessible online, either as written summaries or via live streaming. Many of the sessions were also recorded or videotaped for internal use. I did not record during closed sessions. In smaller sessions (with 10–20 participants) I usually did not record, as those sessions and discussions were more “personal” to some extent. On one occasion, when the prime minister of South Korea

visited the conference, I chose to turn off the recorder due to the severe safety constraints imposed following his visit.

Finally, I recorded focus group interviews. As noted earlier, the interviews were carried out with the assistance of an interpreter. The recordings were hence long, with much talk in Swahili, and with shorter translations. Nonetheless, recording the discussions was useful because I was able to sense the heat and direction of the debate, and note who talked the most and which topics that engaged the informants the most. I do not speak very well Swahili, but I could understand bits and pieces and key words related to my topic and hence get a sense of the discussion. Furthermore, while the interpreter's translation revealed an answer to my question, I could to some extent sense the level of agreement within the group by listening to the recording.

When analyzing interviews, memos and field notes, I used the technique of color tagging and cross-referencing between interviews in printed hard copies of transcribed interviews or other documents. Coding of data means reviewing data and breaking it down into categories, boxes or labels. Coding qualitative data is usually a process in constant change, given that usually such data analysis is a continuous process. For formal documents, it was useful to be able to count words, for example how many times the word "sustainable" appeared in a text, including how the use of the word and the frequency of it, has developed over time.

Document analysis implies analyzing the content of texts, but also an overall hermeneutic analysis (Bryman 2004). It is therefore closely tied with discourse analysis, which also emphasizes linguistic text and content analysis (Peräkylä & Ruusuvuori, 2018).

4.2.6. Discourse analysis

An overall objective of my research, and in particular Research Question 2, was to examine how the green economy travels from discursive level to implementation in practice, by applying particularly the concept of discourse institutionalization (Hajer, 1995). In doing this, throughout the research I aimed at identifying and categorizing discourses, and analyzing discursive drivers behind green economy implementation. While none of the

research questions deal directly with discourse analysis, all of them are framed in an overall discourse approach, and the findings of all three papers and the study in general are based on an overall analysis of the green economy discourse. Therefore, in the following, I introduce the methods of discourse analysis on which I relied.

I primarily relied on Jørgensen and Phillips' definition of discourse analysis as "the analysis of patterns within a domain" (Jørgensen & Phillips, 2002, p. 1). They hold that a discourse can be described as "a particular way of talking about and understanding the world (or an aspect of the world)." Following Hajer (1995, p. 2), performing environmental discourse analysis does not simply refer to analyzing the discussion around certain environmental phenomena, but to examining all of the factors that influence the ways in which we think about those phenomena. Furthermore, we need to analyze the institutional context in which the environmental problem, phenomena or policy are discussed.

Therefore, according to Bryman (2004, p. 539), discourse analysis "emphasizes the ways in which versions of reality are accomplished . . ." Discourse analysis cannot be separated from theory; rather, it must be regarded as not just a method for data analysis, but as "a theoretical and methodological whole" (Bryman, 2002, p. 4). For my study, the applied epistemological and theoretical foundations and frameworks are concerned with power and knowledge regimes, governmentality processes, bricolage mechanisms, and an overall critical approach such as political ecology, all of which must be regarded as part of a whole when analyzing the discourses. This means that discourse analysis involves a general social constructivist approach (critical realist approach, as applied in this study). Discourse analysts are usually concerned with the way knowledge is produced, but also how *reality* is constructed. Discourse analysis is therefore especially useful in order to understand a phenomenon within frames of truth and power, and I have drawn on Foucault's genealogy of power, which treats power as *productive*, meaning power can be influential through discourses (Foucault, 1980). In order to understand the effects discourses have in their institutionalization (Hajer, 1995), the checklist proposed by Dryzek (2013, p. 21) may be followed: (1) identify the politics associated with the discourse, (2) look into the effect it has on government policies and (3) on institutions, (4) investigate the social and cultural impact of the discourse, (5)

analyze the arguments of those critical to the discourse, and (6) delve into the flaws of the discourse that can be revealed by its evidence and argument.

Furthermore, discourse analysis implies the study of language, because reality is not accessible without language (Jørgensen & Phillips, 2002, p. 8). Gee (2014, p. 1) defines discourse analysis as "the study of language at use in the world, not just to say things, but also to do things." Also, of importance for my research and discourse analysis approach, it should be added that actors contribute to the construction of reality through language. Indeed, as author and activist Susan Sontag (1963, p. 1) states; "the truth is always something that is told, not something that is known. If there were no speaking or writing, there would be no truth about anything. There would only be what is."

Hajer (1995, p. 2) holds that when performing discourse analysis, "we do not simply analyze what is being said, but also include the institutional context in which this is done and which co-determines what can be said meaningfully." The fact that statements produced within a domain (i.e., a discourse) are repetitive and similar because they come from the same constructed knowledge and truth ("archaeology of truth") is central to Foucault's thinking (Foucault, 1972, 1980). This method of discourse analysis builds on the identification of statements that are accepted as true within the discourse. In contrast to utterances, statements are laden and have power, and therefore represent shared values and perceptions among the discourse's proponents.

Furthermore, looking for *regularities* in texts and entities analyzed, implies pointing to shared characteristics as opposed to differences in the definition of objects and in thematic categorizations (Foucault, 1972; Kaarhus, 1999). This method of discourse analysis follows Foucault's (1972) "archaeology of knowledge." Also Adger et al. (2001, p. 684) emphasize the analysis of regularities in expressions in discourse analysis. Additionally, they argue that a broader analysis of the actors that are "producing, reproducing and transforming" the discourses, as well as the "social impacts and policy outcomes" the discourses have, is necessary.

Three basic questions are central to performing discourse analysis: (1) What is the discourse doing? (2) How is the discourse constructed to make this happen? (3) What resources are

available to perform this? (Potter, 2004). Dryzek (2013) suggests a checklist of elements that should be included in analyzing discourses. First of all, the researcher must identify the basic entities that are recognized (or constructed) within the discourse—the ontology of the discourse (Dryzek, 2013, p. 17). The researcher must ask "How does this discourse see the world?" It can either reject a phenomenon or embrace it, which is typical of environmental discourses (e.g., Adger et al., 2001). Second, the researcher must find out what the discourse's assumptions are about natural relationships. Third, the agents and their motives must be revealed. Actors create storylines and narratives, and therefore the researcher must identify which actors and driving motives comprise the discourse. Fourth, and finally, a last checkpoint is to identify the discourse's key metaphors and rhetorical devices (Dryzek, 2013). Metaphors are important in discourses and in constructing generalizing and convincing narratives. Success stories (and horror stories) are essential in this respect (e.g., Svarstad & Benjaminsen, 2017).

I primarily relied on classification when performing discourse analysis. According to Gee (2014), some discourse analyses "concentrate on ideas, issues, and themes as they are expressed in talk and writing" rather than in linguistics and language. This implies identifying which entities (statements, policies, actors, storylines, narratives) belong to the same discourse, and naming that discourse based on its content and which statements its proponents hold.

The categories of the green economy that I have identified in this thesis (discussed in Paper 3) are the result of a discourse analysis of the green economy, which was done by analyzing regularities and statements in the discourse (see Annex 3). I used categorizing, color-coding and memos with matrices for this task, as well as theoretical and empirical mapping for identifying the key messages of the discourse, the key stories or narratives that the discourse draws upon, which metaphors it uses, and an overall examination of the actors and content of documents and other data .[36] This was an ongoing process from the time when I started

[36] See, for example, Gee (2014), who proposes a set of tools suitable for social science discourse analysis, when linguistic analysis is not the main task.

data collection, and crystallized along the way, perhaps not entirely until the end of the research project.

4.3. Research ethics and challenges

Several aspects of a research project must be taken into consideration with regard to ethics and challenges, as well as to how the findings should be treated. In this section, I provide the details of such considerations during my research.

4.3.1. Ethical considerations

In Norway, the National Committee for Research Ethics in Social Sciences and Humanities (NESH) has developed a comprehensive set of guidelines for ethical considerations for research in social sciences (NESH, 2016). The purpose of the ethical guidelines is "to help develop ethical discretion and reflection, to clarify ethical dilemmas, and to promote good scientific practice" (NESH, 2016, p. 5). Research ethics refers to the norms, values and institutional arrangements that guide and regulate scientific activities within a field, or, according to NESH (2016, p. 5), "research ethics is a codification of scientific morality in practice." A variety of ethical considerations needs to be integrated in the research process, from beginning to end. Brinkmann and Kvale (2015) holds that ethical issues should be encountered throughout all stages of a research project: through the thematizing stage and the design process, in the interview situation, during transcription phase, in the analysis, in the verification, and finally in the reporting of the findings.

The research project on which this thesis is based was approved by the Norwegian Centre for Research Data (NSD). In Norway, the Personal Data Act requires that the researcher protects personal integrity and privacy in research that involves people. The NSD is responsible for providing advice and approval for studies that fall under the Personal Data Act, and pre-approves studies before data are collected. It is also responsible for approving the researcher's means of data storage when personal data are collected during research. The methods, research questions and treatment of data in this study were all evaluated and

pre-approved by the NSD. Regarding data collection in Tanzania, I additionally applied for and obtained a research permit from the Tanzania Commission for Science and Technology (COSTECH), which was renewed once and thus covered all my research stays.

A particular consideration in research that involves people, including interviews, is the rights of the informants. According to Bryman (2004, p. 507), the following ethical principles should be considered when the research involves informants or participants: whether there will be harm to participants, whether informants participate under informed consent, whether informants' privacy is assured, and whether deception is involved.

Informed consent means that the informant is given as much information as needed to be able to "make an informed decision about whether or not they wish to participate in a study" (Bryman, 2004, p. 540). The participant should be informed about any risks or benefits from participation in the research, and should be fully informed about the background, procedures and purposes of the study. In interview settings, this is normally done through briefing and debriefing (Brinkmann & Kvale, 2015).

In ethnographic research, it may be difficult to obtain fully informed consent, and it is often difficult to know whether the participants have fully understood what the interview implies. In my research, the majority of the informants were high-level key informants who represented multinational organizations or companies, or government agencies, and most of them had a high level of education. Although it could have been expected that this group of informants had a better understanding of what interviews and a research project imply, ethical considerations were still stressed. I did my best to ensure that all informants were thoroughly informed before the interview started. As discussed in Section 4.2.2, the informants were always offered anonymity and assured of confidentiality. Moreover, I explained the purpose of the interview and of the study as a whole. Informants were given the choice to end the interview at any time or not to respond to questions. In the villages where I conducted focus group interviews and individual interviews with local residents, I presented gifts (rice and sugar) to the village leader and a few other senior key informants, such as district government officials. In addition, I shared relevant findings and results with interested informants along the way (published papers and op-eds published in Norwegian

newspapers). I also offered to disseminate my results through presentations at various institutions, but I only received one invitation, and gave a talk at the institution when I was about mid-way through the project.

4.3.2. Positionality and reflexivity

As outlined earlier (in Section 4.2.2), I had a few contacts who assisted me in snowball sampling and gaining access to important events or persons, but I was not dependent on any gatekeepers for the research. As I stayed mainly in Dar es Salaam or Norway, I was able to travel around and make arrangements for myself, and was able to collect my data more or less independently (the exception being the village interviews, where I was dependent on my research assistant). I was not affiliated to any organization, company or institution while I was in Tanzania or elsewhere, which sometimes can cause positionality bias. However, some interviews were conducted while I was eating dinner at restaurants or over a cup of coffee in lobbies in expensive hotels. Investors and partners from the agribusiness industry tended to choose such places, as they were convenient in their hectic lives. Many elite informants were only traveling through for a few days and were not very flexible about the time and location of our meetings. As Dar es Salaam is a big city, there was limited risk of other informants, such as government representatives or farmers, seeing me with company representatives and misunderstanding my role. Moreover, everyone I interviewed knew I was interested in perspectives from all actors, including members of the elite. I was very concerned about explaining this adequately. However, I cannot exclude the possibility that informants had seen me or heard about my interactions with representatives from companies or other sectors, with actors from "inside" government administration, or with representatives of the "global elite", and there is always a possibility that informants or contacts might have misinterpreted my position.

In this regard, it is worth mentioning that some of my key informants had earlier, in different settings, publicly (but falsely) accused some of my colleagues (including my supervisor) of unethical standards, of lying, and of presenting false results from research. Although such accusations were not directly related to my research or topic, they might have affected my

informants' relationship with me. Such informants were often quite defensive when interacting with me, but usually relaxed during the interviews.

Nonetheless, it is important to be aware of the researcher's "reflexivity," which means that "the researcher is part of the social world he or she studies" (Maxwell, 2013, p. 90). Reactivity, or reflexivity, means the effect the researcher might have on those whom he or she studies. The research setting can easily be influenced by the researcher's role, especially in ethnographic participatory observation. I did not conduct such research, but the interview settings might nonetheless have been influenced by my role. Such reactivity may result in, for example, the informant deliberately telling the researcher what he or she thinks the researcher wants to hear, or the informant exaggerating certain aspects of the topics he or she is asked about, or the researcher's position unconsciously affecting the informants' answers. It is probable that some of my informants adjusted their answers based on my role as a researcher.[37] Particularly, SAGCOT employees were extremely cautious and suspicious towards researchers.[38] There is reason to assume that they held back information or modified their answers, especially in response to more critical questions. They were usually overwhelmingly positive and never shared any concern about problems (except a concern about researchers' contributing to bad reputations). This applies similarly to other key elite informants. However, other actors criticized SAGCOT's handling of some matters, which SAGCOT's representatives told me were not a problem. Investors typically complained about problems located outside their mandates, but bragged about their own projects, while others argued in the opposite way.

Unveiling such discrepancies as those described above is an integral part of data analysis for any qualitative researcher. Therefore, it was important to bear in mind possible reactivity biases when analyzing the interview transcripts, and I had to triangulate all information that I obtained during the interviews. A lot of information shared in interviews was read and analyzed with caution. As Maxwell (2013, p. 125) holds, eliminating such influence is

[37] It is important to note that the political climate in Tanzania has become much more restrained in recent years, which probably affected the way government officials interacted with 'outsiders' as early as in the years 2015–2017, when I did my data collection.
[38] This is not surprising as some skeptics, activist organizations, and critical research institutions had published material on SAGCOT earlier.

impossible, but it is important to understand it and "use it productively." In my case, triangulation revealed interesting findings based on what the informants chose to share and not share, which often is an important finding in itself in research.

4.3.3. Validity

Generalization refers to the possibility to "extend" research results or conclusions to other settings (Maxwell, 2013, p. 136). Such external generalization is difficult in qualitative research, since case studies typically are very specific and difficult to replicate (Shenton, 2004). Maxwell (2013) therefore makes a useful separation between internal and external generalization. While external generalization refers to a case's generalizability *beyond* the case investigated, meaning to the extent to which one's findings can be externally generalized also in other settings, internal generalizability refers to *validity*, meaning whether one actually measures what one wants to measure. Validity concerns "the integrity of the conclusions that are generated" from research (Bryman, 2004, p. 28). Maxwell (2013, p. 122) refers to validity as "the correctness or credibility of a description, conclusion, explanation, interpretation, or any other sort of account." Maxwell (2013) calls this internal generalization.

Since qualitative researchers do not have predetermined hypotheses, randomized samples or possibilities to test statistical significance, they rely on other methods for assuring research quality and validity.[39] Such methods are based on the research evidence, not the methods (Maxwell 2013). Some have therefore argued that one should rather operate with concepts such as trustworthiness, authenticity and quality (Denzin & Lincoln, 2018) when ensuring the validity of qualitative case studies. Guba and Lincoln (1982) similarly highlight the four criteria of credibility, transferability, dependability and confirmability as tools to assure the quality of qualitative research. Credibility is similar to Maxwell's (2013) concept of internal validity, and measures how representative or accurate the findings are to the reality that has been investigated. Transferability and dependability are both measures for

[39] Rather, as Maxwell (2013, p. 77) suggests, qualitative researchers often have "propositions" that state their ideas about what is going on as part of the theorizing and data analyzing process, but that are similar to hypotheses.

the possibility of external generalization and replicability, whilst confirmability relates to the quality of how the findings have been interpreted by the researcher (Guba & Lincoln, 1982). They argue that "what is important is not that there be quantitative agreement but qualitative confirmability" (Guba & Lincoln (1982, p. 247). Indeed, according to Maxwell (2013, p. 137), "the value of a qualitative study may depend on its *lack* of external generalizability." Rather, it provides "an account of a setting or population that is illuminating as an extreme case or ideal type."

The case I investigated for this study was a case of green economy implementation with an embedded case study of SAGCOT. I did not aim to make any external (empirical) generalizations from my findings, but rather I have sought to assure internal validity by making sure I measured what I intended to measure, as well as assuring credibility, trustworthiness and authenticity in my research (Denzin & Lincoln, 2018; Maxwell, 2013).

In qualitative research, validity threats must therefore be addressed *during* the research rather than before it, drawing on collected data to explore or rule out any alternative hypotheses that may surface. According to Maxwell (2013, p. 124), there are two main validity threats in qualitative research: researcher bias and reactivity (see Section 4.3.2 above). Researcher bias means "the selection of data that fit the researcher's existing theory, goals, or preconceptions, and the selection of data that 'stand out' . . ." It is impossible to eliminate such biases completely, but as part of one's research integrity, it is important to be aware of them and to be open to possible biases caused by these factors. My presumptions, prior knowledge and ideologies might have influenced the direction of my data collection. Broad research questions such as those in this study, have the possibility to find contrasting conclusions based on what the researcher specifically seeks to find out and understand. That being said, I made a conscious effort to avoid researcher bias by keeping an open mind. Also, many of my final conclusions differed from the presumptions I had when I started, this indicating that I was able to explore alternative hypotheses and avoid presuppositions along the way.

Some strategies can be used to avoid researcher bias, one of which is triangulation. When receiving information from informants, it should be possible to double-check or triple-check

it against other sources. I did this constantly through both data collection and data analysis. Maxwell (2013) outlines several strategies that are useful for this purpose. The first strategy is intensive, long-term involvement and observation. My long-term interaction and involvement with the research project, the case and the informants made it easier for me to observe repeatedly and collect data on the same topic. This advantage relates to Maxwell's second and third strategies, namely rich data and respondent validation (Maxwell, 2013). Making sure one has detailed and varied (cf. rich) data eliminates the possibility of bias or misinterpretation. This can also be achieved through respondent validation, or "member checks," which means "systematically soliciting feedback about your data and conclusions from the people you are studying" (Maxwell, 2013, p. 126). By interviewing key informants several times, or e-mailing them with clarifying questions, I was able to ensure that I had not misunderstood or misinterpreted them. This is the most important step one can take to assure validity, although informants' feedback can never entirely be trusted. Maxwell (2013, p. 127) further suggests that the researcher can search for "discrepant evidence and negative cases," which means actively looking for data that contradicts one's own findings. This, too, was an important part of my research, especially when analyzing documents from a variety of sources. However, it is probable that completely avoiding discrepancies is not possible.

4.3.4. Interpretation

One of my contacts at the University of Dar es Salaam helped me to get in touch with an interpreter who could assist me when I was collecting data at village level. He also functioned as a research assistant for a short time period in 2016. He was fluent in English and Swahili, and his interpretation skills were excellent, although he had no professional training.[40] As he had acted as an interpreter earlier, he knew what was expected from the role. His translations were very detailed and seemed accurate, but he also "read between the lines" when he noted something in the way the informants talked, or if informants started discussing with their colleagues about whether to share some information with me. The

[40] Of course, I cannot know this for sure since my lack of Swahili knowledge prevented me from checking his translations, but I have no reason to doubt this.

interpreter was also very professional when introducing me and the topic of my research when we met new people. He became a good friend and a helpful assistant, as he made use of his contacts and network, and arranged whatever we needed. It would have been impossible to conduct the village-level data collection without his assistance. In addition, he translated some written material (project reports, land title deeds, letters, and maps) during fieldwork and afterwards.

Working with an interpreter always carries the risk of information being lost. Although the translation itself may be excellent, information will always be lost because it is impossible to translate everything that is said or not said in an interview setting. Bujra (2006) holds that conducting research through interpreters implies conducting research through a third party. She argues that the implications involve issues related to language, including how the researcher often does not gain any insights into how the interpreter presents the project or the researcher, how the interpretation of irony or rhetoric may be lost, or how to deal with politically ambiguous pronouncements. This means that interpreters are not merely "the transmitter of what others say." Rather, they are "actively participant intermediaries making judgements which may transform the message received" (Bujra, 2006, p. 175). Interpreters may also filter out what they regard as less important, or they may place emphasis on particular elements in their translation. Furthermore, many concepts, words and ideas are not possible to translate from one language to another. Finally, the way concepts used in different languages "travel" in interpretations may influence the translation and the data. Indeed, this may also be the case when the researcher understands the language.

I have no reason to believe my data was severely affected by interpretation problems. Most importantly, only a small number of interviews (around ten) were carried out with the assistance of an interpreter, in addition to focus group interviews. Data collected through third party interpretation therefore constitutes a rather small portion of my total data. Furthermore, as elaborated on in Section 4.2.2, the main purpose of focus groups in my research was to gain a sense of common perceptions, debates and knowledge about a project, not precise translation of detailed interviews. I regard the focus groups interviews as more like informal meetings, in which it was possible to obtain information without word-for-word translations. However, I cannot rule out the possibility of bias due to interpretation.

4.3.5. Challenges

There are always challenges related to doing research and data collection. As I have elaborated on earlier (in Section 4.2.2 and 4.2.5), shorter field visits were useful in many ways. However, they also posed challenges in terms of arranging interviews and meetings when informants were not readily available, or I was not able to plan field activities much ahead. The biggest challenge I experienced was that informants from several sectors, and in particular SAGCOT, were not particularly predisposed towards researchers. I was told from the beginning that particularly the leadership group was "sick and tired" of researchers "coming only to criticize," as there had been a few researchers interested in, and critical towards, similar topics to mine earlier. Some key informants were extremely suspicious of critical researchers, and had placed me in this category before having even met me. Usually, they did not express their suspicions to me directly, but such suspicions were common knowledge among researchers in the field at the time, and other informants either informed or warned me of this. Moreover, key informants arranged for meetings, and then cancelled. I was told by other informants that this was a deliberate strategy used by some elite persons to "get rid of" researchers in the hope they would tire of trying to make contact. This was a problem for me, especially since I had limited time. Although I developed a good relationship with most of my informants, and was able to talk to most of those whom I wanted to meet with, some key persons kept cancelling our arranged meetings, made promises they had no intentions of keeping, and eventually stopped answering my inquiries altogether. On one occasion, both I and a colleague were confronted quite harshly and told to stop lying and spreading false information (on a topic and case that was not part of our research).

As is always the case in qualitative data collection, I would have preferred to conduct more interviews with more actors than I eventually managed to do, and there were a few key persons whose insights would have been highly beneficial to this research. However, I accept their wishes not to contribute, and that informants always have their own priorities and agendas.

Another important aspect that should be mentioned relates to the methods informants used when interacting or communicating with me, as a young female researcher, I experienced at

least two key informants, who were male and senior, dramatically stating how incredibly useless, insignificant and unimportant my research was, especially with regards to researching SAGCOT. Such arrogant and suppressive statements were probably aimed at holding me back, but resulted rather in the opposite. I had one experience of particularly sexist behavior by a key informant who tried to take advantage of his position as "above" me.[41] When he was drunk, he claimed that he had information that he would share if I went with him to his office late at night, or went swimming with him the next morning. In one case, I believe the same informant used sexual harassment to scare me from investigating a case and eventually sharing what he believed to be critical findings that would be disadvantageous to him. Although it can be difficult to deal with such unexpected and intolerable behavior, I never felt threatened or disempowered, nor did it prevent me from accessing the material in question after all. Rather, quite the opposite was the case, as the fact that informants would go to such extents to mute researchers gave me confidence that the topic I was researching is of public interest.

[41] While a lot has been written about cultural differences and difficulties related to age, gender and position in the field (see e.g. Momsen, 2006), I wish to point out that the informants in question were not native to Tanzania but came from a similar cultural background to mine.

5. SUMMARY OF PAPERS

In this section, I briefly present and summarize the three papers on which this thesis is based. Papers 1 and 3 are single-authored, and Paper 2 is co-authored with one colleague, with equal contributions from the two authors. Two of the papers are published (Papers 1 and 2), while the third has been revised and resubmitted following peer review.

5.1. Paper 1: The green economy in Tanzania: From global discourses to institutionalization

This paper examines how the green economy transfers from a global discursive level to institutionalization at the national level in Tanzania. Since the late 2000s, investments aimed at increasing productivity in the rural agriculture sector in developing countries have become a focus area of the green economy. A merging of various green concepts, in particular the green economy and the new green revolution, has led to a number of hybrid new terms that all seem to target the same sectors: environmental sustainability, poverty alleviation and economic growth. In the developing part of the world, green growth often implies transformed control over natural resources, under schemes that are often driven from abroad, and often under public–private partnerships. SAGCOT is an example of these trends. This paper discusses SAGCOT as a green growth initiative, and demonstrates how the project was initiated and transformed under the prevailing green economy discourse. It examines how the green economy discourse and policy was "grabbed" and interpreted to fit with the existing agribusiness scheme, which SAGCOT was initially, and further demonstrates how SAGCOT was greenwashed in order to fit with the prevailing green discourse that it presented itself as part of. The paper demonstrates and discusses how SAGCOT changed titles and workings of its policy documents to a much "greener" branding, thus illustrating a process of greenwashing in the aftermath of "grabbing" the green economy discourse.

While there is a growing amount of research and policies discussing technological and market-based aspects of the green economy, less attention has been paid to the policy implications and governance aspects of green transitions, especially in developing countries. Drawing on the theoretical concepts of governmentality and institutional bricolage, I

examine how the green economy agenda and discourse was interpreted and reshaped by powerful actors and discursive drivers in the initiation and institutionalization of SAGCOT. I argue that SAGCOT is a good example of how a green economy appears in practice in the Global South, but that the initiative hardly corresponds with the green economy concept as used by UNEP (2011), for example.

Paper 1 particularly answers Research Question 3, in exploring in which ways SAGCOT can mirror green economy implementation in the Global South, and in outlining actors, motives, and drivers behind the initiative. It also relates to Research Questions 1 and 2, in outlining conceptual organizations and discursive powers in the overall green economy, as well as how the green economy and the new green revolution for Africa have merged.

The paper is published in *Geoforum* (2017), *86*, 42–52. doi:10.1016/j.geoforum.2017.08.015

5.2. Paper 2: Towards a green modernization development discourse: The new green revolution in Africa

The paper, which is co-authored with Mikael Bergius, discusses how the green economy and the new green revolution in Africa have revitalized a modernization development discourse in the post-Rio+20 context. Since the Rio+20 conference, greening economies and growth have been key in international politics. In particular, leading policy actors and businesses frame the emerging green economy as an opportunity to realize a triple bottom line: people, planet and profit. Under this combination, development aid is often channeled to green sectors that support environmental sustainability and climate measures. We argue that, under a general privatization of aid and private sector involvement in development, this combination has led to a green modernization discourse in development. A wide range of development initiatives across the Global South, with significant support from international businesses, are framed in this light.

We use the case of the new green revolution in Africa to illustrate how modernization discourses are reasserted under the green economy. The new green revolution in Africa is private-sector led and centered on capital and investments in technology, and its proponents

claim that the new green revolution in Africa is a greener version of the first green revolution, by adding ecological and environmental awareness and climate measures. The concept of "green modernization," as we propose in this paper, attempts to capture these dynamics based on the combination of technology, growth and private capital to spur "green development" trajectories (Bailey & Wilson, 2009; OECD, 2009; UNEP, 2011; WEF, 2010). We focus our discussion on three interlinked components: technology and "productivism," the role of capital and "underutilized" resources, and, lastly, mobility of land and people. First, under new green brands such as "climate smart agriculture" and "sustainable intensification," the discourse extends a strong belief in technological "fixes" to alleviate poverty, feed the world, and protect the environment. Second, it sustains the underlying narrative of an imbalance between "surplus nature" and capital, which needs to be remedied to ensure green growth and development. Lastly, the green modernization discourse rests upon an idea of "land mobility" that envisions a long-term trajectory of people migrating out of the agriculture sector. We argue that these three components of the new green revolution in Africa exemplify an emerging green modernization discourse. These findings illustrate the ways in which discursive powers within the green economy paradigm influence policies implemented in practice.

The contribution of the paper lies mainly in demonstrating how the green economy materializes in practice through the new green revolution in Africa, and how it influences development initiatives and thinking. We argue that the unshaken belief in "modernization" in development has taken a green turn and resurfaced in the development discourse in the wake of the green economy. We demonstrate and discuss how policy frameworks within the new green revolution for Africa to a great extent are based on modernization discourses rooted in modernization theories from the 1960s, which the development sector ceased to use several decades ago. This, we argue, is a result of the reliance on private sector involvement and investments in the green economy and in the new green revolution in Africa.

Paper 2 mainly answers Research Question 2 in demonstrating how the new green revolution for Africa has merged with the green economy in its agenda, discourse and implementation. The paper also answers Research Question 1, as it demonstrates and

discusses a conceptual and discursive rationale behind the green economy, as well as how the green economy transfers from conceptual and discursive level to policy strategies and in practice.

The paper is published in the *Journal of Political Ecology* (2019), *26*, 57–83. https://doi.org/10.2458/jpe.v26i1

5.3. Paper 3: Narrating green economies in the Global South

The paper discusses how the green economy in the Global South is being narrated and implemented under a modernization of natural resource management discourse. There are many ways in which the green economy manifests in policy and practice, and discursively. Green economy strategies often evolve around market-based and technological solutions to making existing industries greener, particularly in the Global North. These two approaches can be categorized into two dominating discourses, namely *green growth* and *green technological transitions.* By contrast, in developing countries with rich resource bases, transitions to a green economy often imply various forms of modernization of the ways in which natural resource sectors, such as agriculture, forestry, pastoralism, and biodiversity, are managed, utilized and controlled. This, I argue, is a result of the process in which the green economy agenda transfers from global discourse to policy implementation in practice. The green economy is interpreted and transformed in various contexts before reaching policy and implementation level.

The paper discusses how prevailing narratives feed into and inform green economy policies when implemented in developing countries with rich resource bases. I argue that a persisting neo-Malthusian narrative of resource scarcity, degradation and overpopulation co-exists with a resource abundance narrative, holding that pristine natural resources are under threat, but that capital, "know-how" and technology can protect these resources while at the same time accumulate economic growth, under the aims of the green economy. The result of this is that the green economy in the Global South is narrated and implemented under a discourse of modernization of natural resource management, which often implies external interventions in the use of natural resources.

Rather than pointing to implications of green economy policies and schemes in the global South, this paper delves into the narratives and discursive drivers behind these practices, and explores how narratives and discourses feed into, shape and justify green economy policies. Thus, the paper contributes to a broader understanding of how the green economy transforms in the process towards implementation, as well as provides insights into how narratives and discourses form policies on the ground. The paper particularly answers Research Question 1.

The paper underwent peer review (December 2018 – April 2019), and was revised and resubmitted to *Environment and Planning E: Nature and Space* in June 2019.

6. SYNTHESIS OF FINDINGS AND CONCLUDING REMARKS

Mosse (2005, p. 2) asks, "what if development practice is not driven by policy?" This is a key starting point also for the research questions and analysis of this study. In examining the processes and mechanisms that guide green economy implementation in the Global South—understood here as both environment and development policies—there seems to be a gap between how the discourses are articulated and the ways in which they are implemented and institutionalized. In this thesis, I argue that the green economy in the Global South is often implemented with a green branding that often does not correlate with the ambitious promises that were made initially. This gap, I argue, can by far be explained by discursive powers (Hajer, 1995). Furthermore, it seems that global policy agendas and discourses transform on their way to implementation to the extent that we can talk about a *bricolage* process (Cleaver, 2012). In the formation of green economy policies, discourses and institutionalizations, actors consciously or unconsciously draw on a variety of arrangements and narratives to establish new practices in responses to new situations, such as the green economy. This "bricolage of the green economy" can also be illustrated by discourse coalitions (Hajer, 1993), referring to how proponents of green economy discourses come together behind the same proclaimed goals and policies, but with different understandings of both the problems and the solutions. Hajer's concept of discourse institutionalization is furthermore useful to draw on when explaining how discourses turn into policies and institutions (Hajer, 1995).

This study evolves around three interlinked questions that together are intended to illustrate the processes whereby the green economy changes from being a global environmental management discourse to being implemented as policy in practice. The research questions aim to illustrate this transition and transformation by focusing on the macro level (global discursive and conceptual level), via a mid-level (the fusion between the green economy and the new green revolution for Africa), to finally looking at the implementation of the Southern Agricultural Growth Corridor of Tanzania as the practice level.[42] By answering the research questions and the corresponding subquestions, I have

[42] Albeit, as pointed out earlier, it is not an aim of this study to look at actual outcomes or policies implemented in practice.

explored and demonstrated which mechanisms that guide the transition of the green economy from discourse via policy to practice. In this final section, I summarize my findings that extend across the three papers, and link both my findings and my arguments to the theoretical foundation of my research. In addition, I provide some concluding remarks.

6.1. Grabbing green: interpretations and utilizations of green agendas and discourses

The first finding from this study discussed in all three papers, particularly in Papers 1 and 2, is that the haziness and ambiguity of the green economy has resulted in a blending of various green agendas in a fluid conceptual base that has consequences for how it is interpreted and implemented in practice. Varied perceptions on what the green economy is or should be often differ tremendously among the proponents and actors, and might not correlate with how the green economy actually appears in practice (which might differ according to the viewer). Although all green economy actors seem to agree that we need to change the economic system so that it becomes more environmentally viable, there does not seem to be a common definition of what such green transitions should imply. This supports Hajer, who points out that although ecological concerns and environmental issues are frequently addressed at high-policy levels, the different interpretations and understandings of these issues may differ radically:

> To be sure, there can be no doubt about the fact that the rainforest cover is in decline, but what exactly is the problem? All actors speak about the rainforest but mean (slightly) different things. If examined closely, the various actors have rather different social and cognitive commitments, but they all help to sustain, in their own particular way, the story-line of the destruction of the rainforests in environmental politics. Once the story-line gets enough socio-political resonance it starts to generate political effects, but who then controls the meaning of the rainforest story-line? What happens in the discursive construction of the rainforest as a public problem? How do the discursive construction and institutional response influence one another? (Hajer, 1995, p. 13)

This example also illustrates how environmental problems and issues have become discursive, and why it is necessary to include a discursive angle in the analysis of the formation of environmental politics, as also Dryzek (2013) argues.

The green economy is broad and vague, and its successes or failures are impossible to measure on a universal basis. I argue that this is a problem for the implementation of the ambitious aims of the green economy. Everyone can define what green means, hence green transitions are everywhere. Since green economy and green growth are vague terms, they can and are being incorporated into almost any policy or project, because actors can design their own green transitions or environmental policies. Hajer's concept of discourse coalitions is useful in this context (Hajer, 1993). A discourse coalition may include members with widely differing commitments to the shared ways of talking about a specific issue, such as an environmental one. Hajer (1995) argues that the concept of sustainable development, for example, should be analyzed as a storyline that creates environmental discourse coalitions in environmental politics. I argue that the green economy has extended this trend to a great extent, as actors behind various green economy approaches and the discourses I have identified in this study hardly share the same presuppositions or perceptions relating to problems or solutions in the green economy approach to which they adhere. In this way, the green fusions I have discussed in this study may represent various discourse coalitions.

Under the green economy, powerful actors have managed to establish policies and schemes that have been framed as environmental initiatives, but that often represent nothing new, but rather business-as-usual under a different branding. Corson, MacDonald, and Neimark (2013) discuss this as "grabbing green,"[43] referring to the process whereby actors select and draw on elements from the green economy in order to justify a variety of schemes or implementations that might appear greener than they are. According to Corson et al. (2013, p. 2), "grabbing green" refers to how the environment "is being used instrumentally by various actors to extend the potential for capital accumulation under the auspices of being green." Grabbing green, they argue, is a core element and driver in the production of various green economies. In this way, green becomes *the* legitimizing power, meaning that green itself has become so important that it has turned into a persuasive or dominant factor. This is evident already at the discursive level, as environmental sustainability and climate measures have been moved to the forefront of most governments' and companies' policy agendas since the late 2000s. This is an important element in processes of institutional

[43] Not to be confused with the well-known term "green grabbing" – which is discussed in Section 6.4.

bricolage too, since new institutional arrangements need to be legitimized both among its actors but also by its users. The findings from this study support this, and show how the use of *green* as a legitimizing power has become dominant in the implementation of the green economy through policies and institutions; these findings are particularly discussed in Papers 1 and 2. I have demonstrated how such processes led to greenwashing in the case of SAGCOT. Greenwashing and rebranding polluting practices is becoming more and more common in sectors that are contributing to the climate crisis, because many actors have realized that in order to survive they have to present themselves as part of the solution rather than the problem. This is illustrated for example by the merging of the green economy and the new green revolution for Africa, where the agribusiness industry realized it could use green as a legitimizing factor in its quest for new market opportunities.

Resulting partly from the trend of greenwashing, various versions of green economy concepts have become buzzwords. This is primarily a problem because actors can mask their operations behind attractive policies. In this way, the green economy represents a quick fix, allowing companies to fulfill environmental regulations. Furthermore, it becomes very difficult for individuals who wish to be environmentally conscious or make a change to navigate the green landscape. This is one of the reasons why I have included a people's green movement as a discourse under the overall green economy, as these efforts too represent one side of the broader green economy. Moreover, the people's green movements discourse is partly a result of how corporations and actors under the current neoliberal capitalism have managed to divert attention away from what matters with regard to both the problems and the solutions to the crises, by focusing on small green changes citizens can do, rather than changing big corporate structures. Actors such as philanthrocapitalist foundations and the agribusiness industry find the new conceptual fusion of green attractive, because the ambiguity opens up for delivering technical packages to achieve environmental and social aims. This has resulted in powerful actors increasingly regarding the green economy as an opportunity rather than a restraint, in contrast to the preceding sustainable development framework or other green policy attempts.

6.2. The spatial fix

Another main finding from this study is that the *growth* narrative of the green economy, played out in many different ways, has become a leading narrative in implementing green economy policies, initiatives and schemes. Furthermore, the fact that growth has become a mantra in green transitions is key for understanding how the green economy manifests in practice. Dale et al. (2016) hold that green growth must be seen as a contemporary reformulation of nature–society relations under the current crisis of capitalism. They argue that green growth has "persuasive power because it 'constitutes a plea for sustainable development without tears'" (Dale, 2016, p. 6). This is also evident from my findings. As discussed in the preceding section, actors themselves can define what green means. Consequently, it does not have to require a lot of sacrifice to incorporate green policies in any agenda. Lohmann (2016, p. 42) even argues that in practice green growth "is not about solving ecological crisis but rather reinterpreting them, creating new opportunities to take business advantage of them, and diffusing responsibility for them." Brockington (2011), for example, discussed how contemporary ecosystem services have established "fictitious commodities."

The above-mentioned process, which I have discussed in all three papers, can illuminate Harvey's concept of a "spatial fix" in terms of how actors started to navigate green landscapes in order to find new investment possibilities after 2008 (Harvey, 1981, 2001). According to Harvey (2001, p. 24), a spatial fix illustrates "capitalism's insatiable drive to resolve its inner crisis tendencies by geographical expansion and geographical restructuring." This expansion and restructuring does not only have to be geographical; rather, as my findings show, they can also be discursive or political, meaning that discourses and policies transform in accordance with the prevailing trends (as particularly discussed in Paper 1). As discussed, expanding the green concept in new directions and by incorporating constantly changing definitions of what green means, actors seek opportunities offered by the green economy.

In *The Economics of Climate Change*: *The Stern Review*, Nicholas Stern argues that the new post-triple F crisis situation offers new possibilities for capitalist forces, and holds that "climate change presents a unique challenge for economics: it is the greatest and widest-

ranging market failure ever seen" (Stern, 2007, p. i). One of the most fundamental drivers behind the green economy is rooted in the "widespread disillusionment" with the economic system that led to the financial crisis (UNEP, 2011, p. 14). An important backdrop for the green growth concept lies in the post triple F crisis realization within the private sector that investments needed to find new sectors (or; to navigate new landscapes) after the financial crackdowns of 2008. Investments in green sectors have therefore increased (Kröger, 2013, 2016; Kwakkenbos, 2012; McKeon, 2014; World Bank, 2013). For instance, drivers behind SAGCOT (primarily the multinational agribusiness industry) interpreted the green economy as best suited them, and reshaped the SAGCOT policy framework by changing the wording and rhetoric in order to take advantage of the opportunities created by the green economy. Terminology can be used in mixed and contradictory ways, and realities can be masked using the power of language and metaphors (Dryzek, 2013), and this accounts for why a discursive framework was useful for this study.

Following Harvey's (1981, 2001) arguments then, green economy schemes, particularly those implemented in the Global South (understood as new spatial arenas), appear as short-term fixes to capitalism's internal and inherent contradictions (Harvey, 2014; O'Connor, 1988, 1991). These contradictions often take the form of externalities that strike back, and then mobilize capital to develop new strategies for accumulation. As discussed in this thesis, and particularly in Paper 2, this logic is the raison d'être behind the green economy. The green economy must therefore be regarded as an emerging frontier in capitalist reorganization, where environmental and climatic crisis is conceived as an opportunity to establish new forms of interaction—or new zones—between capital and nature (Patel & Moore, 2017). Wanner (2015, p. 23) argues that in this way the green economy can be seen as a "passive revolution [in which] neoliberal capitalism adjusts to crises arising from contradictions within itself." From this perspective, the green economy emerges as a new frontier (Patel & Moore, 2017), or a spatial fix (Harvey, 2001) in capitalist reorganization, in which capital and markets are expected to deliver growth and technological advancements to developing countries (Brockington, 2012).

In Paper 2, I and my co-author argue that agribusiness corporations have benefited from an opportune moment that arose from the green economy. Clapp, Newell, and Brent (2018, p.

5) hold that many of these agendas, "packaged as solutions to climate change," are being used to open up new markets and "commodity frontiers." This frontier is noted by, for example, the World Bank (2013), which holds that Africa has become the final frontier for agribusiness corporations, as Asia is increasingly becoming saturated. This, I argue, is a main feature of the combination of the green economy and the new green revolution for Africa, and illustrates the ways in which the green economy transfers to the ground, as well as ways in which contemporary capitalism finds new spaces in order to assure its survival (Harvey, 2014; Wanner, 2015).

The emphasis on assuring that natural assets are "available" (World Bank, 2013) feeds into the persisting belief that we first of all need to continue to assure profit and economic growth, and natural resources should, by all means, be an asset to this end. The green growth discourse therefore builds on a narrative that aims to repair the economy more than the environment.

6.3. From global discourse and agenda to institutionalization

Because of the green fusion that has emerged the last years, there are, in addition to various green economy policies and agendas, a wide range of different green economy *discourses*. Many scholars have made discursive and conceptual categorizations of the green economy. Since a main purpose of this thesis is to examine internal drivers behind the green economy, as well as to understand how the green economy translates to the ground, I have outlined and discussed the discursive landscape of the green economy based on the findings from this study. Paper 3 in particular is a contribution towards understanding the ways in which the green economy is organized discursively, based on narratives that inform and drive the green economy in the Global South, and how these discourses play out in policies.

This study supports the arguments made by Dryzek (2013) and Hajer (1995) on how discourses must be regarded as lenses though which actors see topics. By exploring the various ways in which the green economy is interpreted, I suggest that discursive drivers and interpretations are important in order to understand how the green economy transfers from policy to practice. Furthermore, the findings from this study illustrate the ways in

which powerful discourses influence how green economy policies are implemented, and how discourses institutionalize. Green economy discourse institutionalization is key in all three papers, and constitutes an important part of the study objectives, research questions and findings. Hajer (1995, p. 61) uses the concept of discourse institutionalization to explain how discourses translate into institutional and policy arrangements through their proponents and actors. Event ethnography was useful for understanding and analyzing how power works and under which discourses policies are being negotiated. Harvey (2006, p. 86) calls this exercise "bottom-up theorizing," which "entails viewing any particular event set as an internalization of fundamental underlying guiding forces." In the case of this study, I suggest that discourses institutionalize through policies and initiatives crafted in a bricolage manner. Discourses inform, justify and drive green economy policies in the Global South, and we see the result of these discursive drivers in various green economy agendas and schemes played out in practice. Many of these green arrangements have, as I and others have argued, little or nothing to do with the original green purposes of environmental sustainability, but rather they reflect how actors interpret, transform and take advantage of the green agenda.

This argument relates to Adger et al.'s (2001, p. 681) argument that global environmental management discourses seem to maintain the belief that "external policy interventions can solve global environmental dilemmas." Hajer et al. (2015, p. 1652) call this "cockpit-ism," referring to how global environmental management and governance relies on an "illusion that top-down steering by governments and intergovernmental organizations alone can address global problems." This, Hajer et al. (2015) argue, is typical of the post Rio+20 context in general. Following these concepts, SAGCOT is a good example of how some discourses institutionalize and others do not. Furthermore, it illustrates how theoretical concepts are translated into concrete politics and institutional arrangements at a broad scale (Hajer, 1995, p. 61).

Elements of green governmentality, such as power, environmental governance and discourse institutionalization, can explain how the green economy transfers from discourse to policy, and from policy to practice, in general, and how the new green revolution for Africa, and in particular SAGCOT, was "greened." Governmentality has been useful for this study as an analytical tool to help explain how discourses influence actors in the governing processes

in the implementation of environment and development schemes (Dean 2010; Foucault, 1991). As a theoretical concept, governmentality supports the epistemological framing of this study, in which I hold that there is a reality that one cannot see, where abstract phenomena, such as discourses and power, are nonetheless real because they can influence something else. This claim is supported by the findings of this study.

Governmentality can explain top-down implementation of policies, as in the case of SAGCOT (Ferguson, 1994; Mosse, 2005; Scott, 1998). Governmentality is furthermore suitable for research on how governing institutions and powerful actors contribute to the implementation of various policies. The related notion of environmentality (Luke, 1999) can illustrate how the green economy is being implemented through top-down steering affected by global power patterns. Agrawal (2005) stresses that power, knowledge, institutions, and subjectivities are essential in understanding changes in environmental governance. He finds that reorganization of institutional arrangements "has facilitated changes in environmental practices and levels of involvement in government" (Agrawal, 2005, p. 202). This shows how global discourses can influence national policies and governance, and is further demonstrated by the findings of this study. Following Adger et al. (2001, p. 683), political prescriptions based on global environmental discourses are often inappropriate in practice, as they are often based on "shared myths and blueprints of the world." This is illustrated also by the findings of this study, particularly in Papers 1 and 2. Furthermore, in Paper 3, I discuss how certain storylines and narratives drive and justify green economy discourses, particularly in the intervention in modernizing natural resource management in the Global South. The ways in which discourses are shaped and how they exist in relation to the actors who created them and maintain them, are relevant for the understanding of how discourses institutionalize.

Throughout the research for this thesis, institutional *bricolage* has been useful and relevant in the exploration of how discourses and policies change in its process towards implementation, as well as how various sources of authority relegitimized the notion of green through selected narratives and green economy discourses. Cleaver (2012, p. 45) states:

> Leakage of meaning, classification and conferring legitimacy does not just happen – it is undertaken by people consciously and unconsciously navigating the institutional landscape and patching together "new" arrangements in a dynamic environment . . . There is then an iterative relationship between bricoleurs and the institutions they shape and are shaped by.

By drawing on the concept of institutional bricolage (Cleaver, 2012), I show, in Paper 1, how new institutional arrangements in environmental governance are formed in a certain "piece-and-patch" together manner, whereby actors consciously and unconsciously build on certain elements from the green economy, while other elements are left out. The findings from this study suggest that an overall bricolage approach is useful for understanding how the green economy institutionalizes in the Global South. Based on the post-triple F crisis scenario, new institutional arrangements and policies were needed in order to implement green economy schemes. Through these new arrangements, discursive powers are visible in a certain "conduct of conduct" in green economy implementation. I argue that this blended mosaic of power structures and agencies, and differing interests among its actors, represents a main problem in implementing the green economy.

6.4. The green economy in the Global South as modernization of natural resource management

A main finding of this study is that the green economy often means different things in the Global North and Global South. Market-based and technological solutions to environmental challenges are a key feature of green transitions in industrialized countries, building heavily on eco-modernization (Ekins, 2017; Mol & Spaargaren, 2000). However, in the Global South, the focus is usually on modernization, management and protection of, as well as investments in, natural resource sectors (UNEP, 2011; World Bank, 2012, 2013, 2019). In all three papers of this thesis, I have examined how these mechanisms play out in the fusion between the new green revolution in Africa and the green economy. I argue throughout the thesis, and particularly in Paper 2 and Paper 3, that one result of this combination is that a modernization discourse has been revitalized under the green economy. This discourse is evident in key green economy policy agendas, such as those of UNEP (2011, 2015), OECD (2011, 2015) and the World Bank (2013, 2019), but also among actors and proponents of a

green economy in the Global South. My data, particularly as presented in Paper 3, support this finding.

In Paper 2, I and my co-author argue that a reinvigorated "green" modernization development discourse has surfaced as a result of the green economy. This discourse plays out in both environment and development schemes in the Global South, but we use the new green revolution in Africa as a case to illustrate this in the paper, as is done in this study overall. In Paper 2, we argue that new brands such as climate-smart agriculture, extends the belief in technological fixes to achieve the aims of the green economy; poverty alleviation, economic growth (also read as food production) and environmental protection. Furthermore, the belief in a mobility of both land and people to overcome the crises and achieve economic growth builds on classic modernization thinking (Lewis, 1954; Rostow, 1960). Finally, it rests on a narrative of "imbalance" between "capital deficits" and "surplus nature" that only awaits investment to spur green growth and development. This is also an argument of Paper 3.

In Paper 3, and in the thesis overall, I argue that mainstream green economy discourses, i.e. green growth and green technological transitions, meet and merge with powerful narratives in the process towards policy implementation in the global South. I argue that a persisting neo-Malthusian narrative of resource scarcity, degradation and overpopulation co-exists with a narrative of resource abundance in the global South (Scoones, Smalley, Hall and Tsikata, 2018). The abundance narrative holds that while natural resources, particularly in Africa, are under threat from being degraded and scarce, they are pristine and rich, and must be protected and developed by the inflows of capital, "know-how" and technology under the aims of the green economy. The following quote from Akinwumi Adesina, who received the World Food Prize in 2017, illustrates the modernization discourse in the fusion between the green economy and the new green revolution in Africa;

> The new agriculture gospel is simple: to lift millions of people out of poverty, agriculture must become a business. For in agriculture as a business lies the hope of economic prosperity for Africa …. Every time I pass through rural parts of African countries – where the agriculture engine is or should be unlocked – I see nothing but wasting potential (Adesina, 2017).

The modernization discourse proposes the idea that we need to protect, utilize and manage 'natural capital' such as agricultural land in new ways, and that natural resources should be invested in – or 'developed – in order to accumulate green growth as well as for the purpose of environmental preservation. This is not only seen in the various green schemes that are being implemented, as discussed in a rich (mostly political ecology) literature, but also in policy documents, such as those by the World Bank, which states:

> Different resources require different types of policies. For extractable but renewable resources, policy should center on defining property rights and helping firms move up the value chain. For cultivated renewable resources, policy should focus on innovation, efficiency gains, sustainable intensification, and "integrated landscape" approaches. (World Bank, 2012, p. 105)

With regards to Tanzania, the World Bank recently published a report on how the natural resource sectors of the country can and must contribute to the achievement of green development. In the foreword, it is argued that "the country faces a fascinating, one-time opportunity to harness its unique natural resources to the long-term benefit of its economy and its people" (World Bank, 2019). Furthermore, the World Bank holds that there are four pathways of which Tanzania now must follow "to become an engine of growth and sustainability"; (1) conservation of biodiversity and marine and freshwater resources, (2) promotion of resilient landscapes, (3) access to modern fuels and low impact urbanization, and (4) strengthened institutions for pollution management. The World Bank emphasizes "the importance of strong institutions in the control and management of environmental performance" (World Bank, 2019, p. 20-21).

Büscher and Fletcher (2015) argue that the new mode of accumulation after the triple F crisis can be described as "accumulation by conservation," defined as "a mode of accumulation that takes the negative environmental contradictions of contemporary capitalism as its departure for a newfound sustainable model of accumulation for the future" (Büscher & Fletcher, 2015, p. 273). This justifies interventions in nature (green sectors) and provides an explanation for why there is still a belief in the necessity for "us" to intervene in order to save nature from "them" (Eddens, 2017; Gardner, 2017). The findings from this study support this. It is widely believed by the proponents of the new green revolution for Africa that it is

the only way to deal with the "Malthusian dilemma", which is, how to feed the growing global population assumed to reach 9 billion by 2050. This is also key in green economy policies. Natural resources such as the agriculture sector must therefore be modernized and managed in new ways, it is held. Therefore, along the lines of the green economy, actors claim that by modernizing rural agriculture, Africa's farmers can boost agricultural productivity and curb local as well as global poverty, *while* also addressing environmental and climatic challenges (Dawson et al., 2016; Taylor, 2018; Yara, 2015). This is a typical feature of the green economy in the Global South, and is discussed in all papers of this thesis.

As demonstrated in much of the existing literature, political ecology can offer a useful framework for analysis in understanding how green economies affect local communities in developing countries (Bergius et al., 2018; Cavanagh and Benjaminsen, 2017). This is especially the case in natural resource extraction, control and conservation schemes, but also under the current neoliberalization of nature more generally, and regarding the political implications of green shifts. As Li (2007b, p. 7) argues, "questions that are rendered technical are simultaneously rendered nonpolitical." Political ecologists and critics have expressed worry about certain blind spots with regard to questions of power and distribution in both the green economy and the new green revolution for Africa (Bergius et al., 2018; Clapp et al., 2018; Holt-Giménez & Altieri, 2012; McKeon, 2015; Moseley, 2017; Peet et al., 2011; Tilzey, 2018). As Fairhead et al. argued already in the early 2010s, land acquisitions and new forms of appropriation of natural resources for environmental ends, which they coined "green grabbing," is an emerging trend that becomes more and more significant and worrying (Fairhead et al., 2012). Other scholars, too, have argued that the green economy in the Global South in practice represents or implies new ways of land alienation, or new waves of land grabbing (Nhamo & Chekwoti, 2014).

While the present study does not look into implications of variegated green economies in the global South, it does contribute to a broader understanding of how the green economy is interpreted and implemented in the Global South. It provides insights into the processes of how discourses translate into policies, and on the narratives and discursive drivers behind various green economy policies. My findings suggest that a discourse of "modernization of natural resource management" is a common feature of the green economy in the Global

South, and such modernization may imply transformed control over, use of, or access to natural resources such as land. In this sense, this study contributes to an understanding of the mechanisms that guide and drive green economy implementations in the global South.

6.5. Final remarks

The main objective of this study has been to examine how the green economy transfers from global discursive level to implementation in the Global South, both from a discursive angle as well as through empirical exploration of how green economy policies transform and translate in the process towards implementation. Throughout this thesis, I have come to conclude that actors "navigate green landscapes" in order to implement green economies in varied ways and with various motives and aims. I have sought to explain how powerful actors consciously and unconsciously draw on existing structures, power patterns and narratives to establish policy frameworks within the green economy. This navigation of green landscapes therefore relates to all research questions and papers of this thesis. Research Question 1 asked how the green economy is organized conceptually and discursively, and how the green economy agenda transfers into policy strategies and in practice in the Global South. Paper 3 discusses different interpretations, agendas, narratives and discourses of the green economy, whereas Papers 1 and 2 examine how green economy agendas, policies and discourses translate into policies and institutionalizations in the Global South. Research Question 2 asked how the new green revolution for Africa is incorporated into the green economy, and how this hybridization manifests in practice. This is thoroughly discussed in Papers 1 and 2, and also touched upon in Paper 3. Finally, Research Question 3 asked how the Southern Agricultural Growth Corridor of Tanzania serves as an example of the green economy in the Global South. This is answered and discussed in Paper 1. Finally, a discussion of how this green landscape manifests in policies—in the form of green economy discourses, narratives and storylines—is provided in Paper 3.

The findings from this study contribute to conceptual and theoretical understandings of the green economy. I have examined how the green economy is organized conceptually and discursively, and provided examples of how the green economy agenda transfers into policy

strategies and in practice. Furthermore, I have identified the content of the green economy as a global environmental management discourse, as well as its subdiscourses. I have focused on the green economy in the Global South, and in particular through the new green revolution for Africa and the embedded case study of SAGCOT. By providing insights into the conceptual and discursive organization of the green economy, as well as demonstrating how the green economy transforms in the process towards policy implementation and practice, this thesis is a contribution towards the existing literature that discusses various green economy implementations in practice based on empirical evidence from local levels. Furthermore, this thesis examines institutional aspects of green economy implementations in the Global South, and particularly how powerful actors involve in the institutional management of natural resources in developing countries, as discussed through the case of the new green revolution for Africa.

Much of the literature on the green economy concentrates on financial and technical solutions in various green transitions, as well as on the implications of various green schemes. By contrast, this study contributes to a broader understanding of green economy implementation by also including aspects of power and discursive drivers of green economy implementations. This thesis does not seek to point to outcomes of the green economy as such. Furthermore, is it an impossible task to demonstrate and discuss the green economy fully as a concept and discourse, and how its policies transfer into practice. My aim has therefore been to provide insights into this rather than a full answer. It is beyond the scope of this study to provide a complete understanding of the green economy in the Global South. Others seeking to answer the same questions might conclude differently.

In sum, based on the findings from my research, there is reason to believe that the green economy has not—so far—succeeded in fulfilling its ambitious targets, but rather led to two distinct types of processes when implemented in the Global South. These are, (1) processes of grabbing green and greenwashing in the need of spatial fixes as a consequence of internal dynamics in capitalism, and (2) modernization of natural resource management, which may lead to transformed control over the use of natural resources such as land, or the transformation of agricultural practices.

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PAPER 1

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The green economy in Tanzania: From global discourses to institutionalization

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ABSTRACT

The purpose of this paper is to examine the transfer of the green economy from a global discursive level to institutionalization at the national level in Tanzania. While there is a growing amount of research discussing technological aspects of the green economy, less attention has been paid to policy implications and governance aspects, especially in developing countries. There is an increasing emphasis on technological and market-based solutions to environmental challenges globally and in the developed part of the world. However, in developing countries, 'green growth' often implies transformed control over natural resources – under schemes that are often driven from abroad. Over the last five to ten years, investments aimed at increasing productivity in the rural agricultural sector in developing countries have become a focus area of the green economy, but various concepts of *green* have become confused. Such (mis-) interpretation of the green economy has consequences for implementation and outcomes of various 'green' projects. Drawing on governmentality as well as the concept of institutional *bricolage*, I examine how the green economy discourse and policy at the global level have been reshaped and re-interpreted to fit the existing agri-business initiative of the Southern Agricultural Growth Corridor of Tanzania (SAGCOT), which has been championed as a model for green economy implementation in Africa. I discuss how the green discourse has been 'grabbed' as an opportunity to 'greenwash' SAGCOT in its establishment and institutionalization.

1. Introduction

Since 2012, the 'green economy' has been presented as a framework for climate mitigation, a new, 'green' driver for economic growth, and a tool for poverty alleviation. The overall aim is to function as a catalyst towards the achievement of sustainable development (United Nations Environment Program (UNEP), 2011). While there is a growing amount of research discussing technological, financial and practical aspects of the green economy, less attention has been paid to policy and governance aspects, especially in developing countries. At the same time, agricultural development has, to an increasing extent, been interpreted as green economy implementation, especially across the African continent (Bergius et al., 2017). This paper examines how the green economy discourse and policy at the global level has been 'grabbed' and interpreted to fit an existing agri-business scheme in Tanzania; and how this initiative has been re-shaped and presented as representing 'green growth' along the lines of the prevailing green economy trend (Kabubu, 2012).

The years prior to the promotion of the green economy at the Rio + 20 conference in 2012, saw an increased awareness of climate change and its relationships to economic growth and the financial crisis. For many, these crises presented a "unique moment in history in which major environmental and economic challenges could be tackled simultaneously" (Tienhaara, 2014, p. 1). Governments and policy-makers around the world proclaimed that economic recovery after the financial shocks of 2007/8 should be 'green' in order to ensure sustainable growth (Ban and Gore, 2009; Organization for Economic Co-operation and Development (OECD), 2009). These were not new ideas (see e.g. Pearce et al., 1989), but led to new and invigorated debate around sustainable development (WCED, 1987).

Green economy ideas cover a wide range of areas, but the leading policy papers demonstrate a strong reliance on technological and market-based solutions to environmental problems (UNEP, 2011; OECD, 2009). There seems to be an assumption that we can solve the world's combined challenges by simply adjusting economic systems (Ehresman and Okereke, 2015). However, what is often lacking in green economy policy strategies is attention to political and institutional implications, as well as issues of power, and social and environmental (in)justice in various 'green' transformations (Scoones et al., 2015; Newell and Mulvany, 2013; Brockington and Ponte, 2015;

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Brown et al., 2014).

Simultaneously, there has been an increase in foreign control over farmland and natural resources (Anseeuw et al., 2012), particularly in Africa. A renewed 'scramble' for Africa's farmland was sparked after the food price-hike in the mid-2000s (Evers et al., 2013; Sulle, 2015). Interestingly, this urge to make money from, or control, Africa's natural resources and farmland has recently been combined with the idea of the green economy and its implementation. Given that 'green transformation' most often includes parallel strategies of poverty reduction, climate mitigation, environmental preservation and economic growth, the pathway chosen has often been agricultural investment in developing countries (GRAIN, 2015; UNEP, 2015). Investing in agriculture and intensifying production are often perceived as efficient interventions in order to curb rural poverty (Kay, 2014). Championed under a green economy banner, this combination has paved the way for large-scale agricultural initiatives and agri-business investments such as the New Alliance for Food Security and Nutrition, and the Comprehensive Africa Agriculture Development Program (CAADP) (Oakland Institute, 2016; McKeon, 2014; Daño, 2007; Sulle, 2015). According to Nhamo and Chekwoti (2014), we are now witnessing a fourth generation of land acquisition in Africa, taking place under the contemporary green economy transition.[1]

Tanzania has embarked on a journey towards a green transformation agenda through the large-scale agricultural initiative SAGCOT – the Southern Agricultural Growth Corridor of Tanzania. SAGCOT is a public-private partnership between the Tanzanian Government and more than 100 partners, including agri-corporations, local organizations and associations, a small number of donors and development partners, and most importantly foreign/multi-national investors and business corporations (SAGCOT, 2013). When launching the initiative in 2010, the government proclaimed that this was the new, green road to economic growth, increased agricultural production, and environmental preservation. In order to "unlock the region's potential," SAGCOT aims, by 2030, to "mobilize 3.5 billion USD in investments, bring 350,000 hectares of land into commercial farming, create 420,000 new employment opportunities, [and] lift 2 million people permanently out of poverty" (SAGCOT, 2015). Their strategy is to incorporate small-scale farmers into enhanced and commercialized agricultural production and provide market access and agricultural assistance to smallholders through partnerships in value chains, out-grower models, and a small number of plantations (SAGCOT, 2011). SAGCOT is targeting one-third of the Tanzanian mainland, encompassing around five million hectares of land (Fig. 1), with a total population of approximately ten million people. SAGCOT is championed as a typical green economy initiative (SAGCOT, 2013; Kabubu, 2012; Bergius et al., 2017), flagged as green transformation, green growth, or, in its own words, 'agriculture green growth' (SAGCOT, 2013).

There is a growing amount of research pointing to the consequences of large-scale land acquisitions and privatization of agricultural investments in Africa in 'the name of green' (Byiers and Rampa, 2013; Nhamo and Chekwoti, 2014; Cotula, 2013; Kaag and Zoomers, 2014; Evers et al., 2013), including SAGCOT (Sulle, 2015; Sulle, 2016; Bergius et al., 2017; Coulson, 2015; Chung, 2017). While concerns have been raised about the possible impacts of SAGCOT, both at national and local levels, this study does not aim to point to implications of the initiative itself. Rather, I seek to explore how and why the framing of SAGCOT changed from being an agricultural investment portfolio project to a so-called 'agriculture green growth' and 'inclusive green growth' initiative, and the ways in which it has been justified as such.

I will do so by drawing on a theoretical framework which combines the concepts of discourse institutionalization (Hajer, 1995), governmentality (Foucault, 1991), environmentality (Luke, 1999), political ecology (Peet et al., 2011) and in particular, institutional *bricolage* (Cleaver, 2012). The original meaning of the word *bricolage* is a "construction or creation [of something new] from a diverse range of available things," regardless of the original purpose of those things (Cleaver, 2012, p. 33). Cleaver (2012, p. 45) defines *institutional bricolage* as "a process in which people consciously and non-consciously draw on existing social formulae […] to patch or piece together institutions in response to changing situations". It is important to "incorporate awareness of the 'invisible' workings of power" into institutional understanding and analysis (Cleaver, 2012, p. 22). The idea of institutional *bricolage* has been used primarily to demonstrate how local communities adjust existing structures and institutional practices in local natural resource management (Cleaver, 2012). I seek to explore how institutional *bricolage* can be useful in explaining how discourses and policies change from policy to practice, in a 'piece-and-patch-together' manner, as well as how various sources of authority have re-legitimized the notion of 'green.' This work contributes to an understanding of how the green economy moves from being a policy and discourse, to practical implementation, and the findings can provide insight into how green growth is manifest on the ground in a developing country.

Data collection for this research study was carried out between 2015 and 2017, at multi-national and international levels, as well as at national, district and local levels in Tanzania. I used qualitative data collection methods mostly in the form of interviews (80 in total) among agri-business and agriculture sector actors and corporations, global organizations, ministries and government institutions in Tanzania, as well as Tanzanian non-governmental organizations (NGOs) and researchers. Members of the SAGCOT board, the SAGCOT leadership and other SAGCOT staff members were among the key informants, as well as SAGCOT partners, representatives from the Tanzanian government and institutions who were involved in the formation of SAGCOT. I also carried out document analysis, as well as using participatory methods such as observation and mapping. Finally, I participated in several high-level international green economy policy conferences with a total number of approximately 2200 participants, as well as the SAGCOT Annual Partnership Forum 2017, with around 500 participants. In addition to activities and interviews carried out at these events, I analyzed the conference sessions, coverage and documents through event ethnography (Campbell et al., 2014) and participant observation.

2. The policies and discourses of the green economy

In the years before and after the launch of the Brundtland report *"Our Common Future"* (WCED, 1987), there was a debate around the concept of 'sustainable development.' Already at that point a type of green economy idea was suggested as an alternative to conventional economic models, based on the argument that sustainable development would not be possible if economic systems and the environment were treated separately (Pearce et al., 1989). However, these ideas did not gain substantial traction in academic and policy circles until the late 2000s, when several different schools of green transformations developed, mostly as responses to the 'triple F' crisis (food, fuel and finance crises between 2007 and 2010) (Tienhaara, 2014; Death, 2015; Newell, 2015; Dale et al., 2016; Luke, 2009).

2.1. Prevailing policies and discourses

Today, there are several parallel 'green' schools in addition to, or as sub-categories of, the overall green economy approach, most notably 'green growth' (OECD, 2009) and 'green transition' or transformation (Scoones et al., 2015).[2] UNEP (2011, p. 16) provides the most

[1] Previous rounds of land acquisition took place in pre-colonial, colonial and more immediate post-colonial eras.

[2] In this paper, I refer to the overall green economy as well as green growth, and regard these as largely being synonymous. However, green growth focuses more on economic

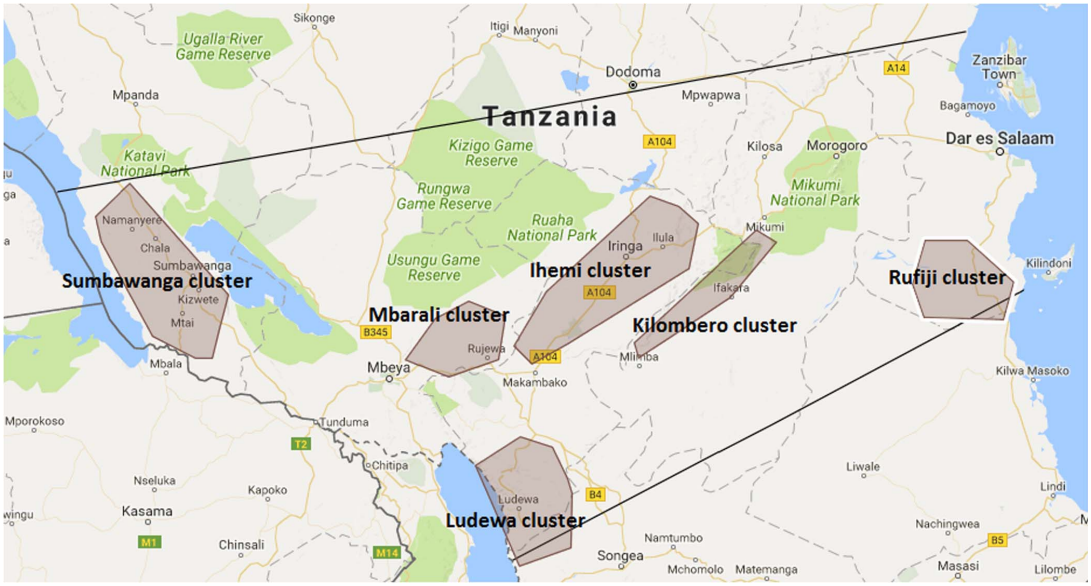

Fig. 1. Map of Tanzania and the Southern Agricultural Growth Corridor with the six production 'clusters' (map produced by author based on original map of Tanzania from Google Maps).

commonly used definition, defining a green economy as one "that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities." The key aim for a transition to a green economy is "to enable economic growth and investment, while increasing environmental quality and social inclusiveness" (UNEP, 2011, p. 16). The main message is that economic growth should continue, not be halted, in adapting economic systems to become more environmentally viable.

The green economy is a multi-dimensional construct involving a wide range of actors and policies. Policy and scholarly debates have, however, been concerned mostly with investment and innovation, technological solutions and governance (Ehresman and Okereke, p. 2015). Indeed, Newell (2015, p. 69) argues that "much of the policy debate so far, as well as existing academic scholarship on these questions, has […] focused more on the *governance* of transitions than the *politics* of transformation" (my emphasis).

It is important to distinguish between the green policies and transformations that take place in practice (Parr, 2016; Newell, 2015; Mazzacuto, 2015; Spratt, 2015) and the overall green *discourse* that shapes these policies. The discourse concept is important to understand how the green economy is being implemented, because discourses "coordinate the actions of […] people and organizations" (Dryzek, 2013, p. 10), especially in global politics, power and practices (Hajer, 1995).

There are furthermore many interpretations and categorizations of the green economy – politically, discursively and practically.[3] However, it is striking that most green economy definitions and concepts lack an understanding of questions of justice and inclusiveness (Scoones et al., 2015). Even though many green economy policy frameworks and strategies (such as UNEP's own), discuss poverty and global inequality, few of them tackle questions of power and distribution very well.

Political ecology can offer a framework for analysis to understand how green economy implementation affects local communities and vulnerable groups in developing countries, especially in cases of natural resource management control, conservation and extraction under the current neo-liberalization of nature (Peet et al., 2011; Robbins, 2012; Wanner, 2015). Hall (2015) moreover suggests that political ecology can contribute to studies of international agri-food systems; both through studies of 'the global land grab,' but also because of political ecology's "combination of attentiveness to global forces and processes with a concern for the specificities of the human metabolism with nature and for heterogeneity and complexity" (Hall, 2015, p. 414). As Bergius et al. (2017, p. 1) also note, political ecologists "have expressed worry about the adverse effects on smallholder livelihoods of a green economy focused on modernization in a development context."

2.2. Agricultural development as a green economy implementation in the global South

Interestingly, the green economy seems to be interpreted differently in the global North and South. In developed countries, green economy often implies technological advancement to make fossil fuels more energy efficient, advocacy and support for a switch to renewable energies, as well as implementation of market-based and fiscal instruments to control the environment. By contrast, in developing countries, green economy implementation often reads as environmental protection and management of, and control over, natural resources. Initiatives such as carbon and biodiversity offsetting, REDD+, water catchment control and wildlife conservation are examples of this. However as Death (2015, p. 2208) argues, we need to pay more attention to the national strategies and development programs that are being deployed by governments in developing countries, "some of which are mobilizing the green economy in ways which have only peripheral relationships to the traditionally 'green' issue areas of conservation and natural resource management."

A good example of such mobilization is agricultural investment programs which are presented as green economy implementation.

(*footnote continued*)
growth and the environment being something to utilize to achieve that, and is advocated to a greater extent by OECD (2009, 2011), whilst UNEP (2011, 2015) places more emphasis on social inclusivity and environmental sustainability in their green economy agenda.

[3] See, amongst others, Death (2015), Scoones et al. (2015), Ferguson (2015) and Tienhaara (2014) for extensive overviews.

Targeting the agricultural sector in developing countries has been seen by many actors as a promising pathway to reduce poverty and increase economic growth, while simultaneously assuring environmental sustainability (FAO, 2017; UNEP, 2015; WEF, 2010). The idea of agriculture corridors as an economic development strategy, particularly in Africa, has gained increased global attention since 2008 (Byiers and Rampa, 2013). The World Economic Forum (WEF)'s groundbreaking roadmap, *Realizing a New Vision for Agriculture* (2010), was largely responsible for laying the foundation for increased engagement of multinational companies in agricultural investment in developing countries. This strategy aims to provide global food security, increase agricultural production in an environmentally sustainable way – including tackling the threats of climate change – and, finally, generate economic growth and opportunity (WEF, 2010). These aims correspond closely with the aims of the green economy (UNEP, 2011).

The last decade has seen a wave of various agricultural schemes across the African continent.[4] Interestingly, the new 'green revolution' in Africa, largely driven by multi-national actors such as the Rockefeller Foundation and the Bill and Melinda Gates Foundation, and inspired by the green revolution in Asia in the 1960s, is often merged both discursively and politically with the green economy under new terms such as 'agriculture green growth' (Daño, 2007; SAGCOT, 2013). There are a vast number of policy documents that discuss and frame so-called agriculture green growth and highlight similar goals to those of the green economy agenda (New Alliance 2012; Grow Africa 2013; WEF, 2010). Despite the distinction between the green *revolution*, with its emphasis on increased production, and the green *economy*, agricultural initiatives are, to an increasing extent, interpreted and presented as green economy implementation in developing countries. SAGCOT is a case in point – its agriculture green growth approach is a hybrid of green economy and green revolution concepts. According to the SAGCOT Framework for Agriculture Green Growth (2013) (also called, and from now on, the Greenprint):

> While [agriculture green growth] incorporates traditional environmental management tools […], its focus is on identifying and catalyzing new opportunities in agricultural production, technical and institutional infrastructure, and conservation and livelihood activities for sustainable economic growth
>
> (SAGCOT, 2013, p. 4).

3. The case of the southern agricultural growth corridor of Tanzania

Tanzania is among the top countries in Africa targeted by foreign land investors (Anseeuw et al., 2012; Sulle, 2015). This is driven by both push and pull factors – the global rush for farmland, and the government's drive towards modernizing the agricultural sector. SAGCOT's aim of "foster[ing] inclusive, commercially successful agribusiness" (SAGCOT, 2015) corresponds with Tanzania's 2009 national policy *Kilimo Kwanza* ('agriculture first'). The aim of *Kilimo Kwanza* is to commercialize and modernize the agricultural sector in Tanzania, with the help of incentives from the private sector (Coulson, 2015; Sulle, 2015), and SAGCOT was established as the first major program under this policy.[5] SAGCOT's goals of poverty reduction, economic growth and environmental preservation are also obvious echoes of the green economy. However, neither of these were the main drivers behind its establishment.

The first ideas came largely from the multi-national, Norway-based fertilizer company, Yara, in 2007/8 related to agreements with the Tanzanian Government to establish a storage facility in Dar es Salaam. Yara had been involved for a long time in creating a coordinated approach towards agricultural development in Tanzania.[6] The President of Tanzania in the mid-2000s, Kikwete, was a strong proponent of agricultural development, and sought increased cooperation from abroad. At the same time, the idea of agriculture corridors emerged – this was also first suggested by Yara at the United Nations Private Sector Forum in 2008 (Jenkins, 2012; Paul and Steinbrecher, 2013). In the African context, the agriculture corridor approach came largely from the World Economic Forum (WEF) and the Grow Africa initiative. The previously-mentioned 'New Vision for Agriculture' was launched at WEF in 2009, led by a number of multi-national food and agri-business corporations (Nogales, 2014; WEF, 2010).[7] These initiatives were aligned with the African Union's Program for Infrastructure Development in Africa (PIDA), and CAADP, which is the agriculture program of the New Partnership for Africa's Development (NEPAD) (Nogales, 2014).

The SAGCOT idea was conceived in this environment at the WEF in 2009 as a collaboration between the Government of Tanzania, Tanzania Agriculture Partnership (TAP), the Tanzania Investment Center (TIC), Yara, the Norwegian Embassy, the Norwegian Investment Fund for Developing Countries (Norfund), the African Development Bank (AfDB) and the World Bank. SAGCOT was officially launched at the WEF held in Tanzania one year later (2010), and the overall stated aim was to transform Tanzania's agricultural sector through commercialization and modernization (SAGCOT, 2011). Thus far, SAGCOT is one of two agriculture corridors in Africa that have been implemented on the basis of such partnerships (see Fig. 2).[8]

3.1. Grabbing the green discourse and the (green) growth narrative

From the beginning, SAGCOT had a clear top-down agri-business profile, dominated and driven by foreign multi-national organizations and corporations. This is in line with prevailing trends in international development, which emphasize the importance of foreign investment (Norwegian Government 2015, 2017; Bergius et al., 2017), and links with the overall green economy aim of seeking the bulk of investments from the private sector (UNEP, 2011). A study done by the Corporate Social Responsibility Initiative at Harvard Kennedy School, argues that "the private sector is increasingly recognized by the development community as a crucial partner" in addressing the challenges of underdevelopment and climate change (Jenkins, 2012, p. 4). Moreover; "new technologies, products and services, and more inclusive business models are helping to improve livelihoods and quality of life for millions of low-income households while at the same time improving the efficiency of natural resource use and decreasing environmental degradation" (Jenkins, 2012, p. 4). This corresponds with the visions of SAGCOT. Former president Kikwete stated in the foreword of the SAGCOT Investment Blueprint (called from now on: the Blueprint) that earlier agricultural strategies in Tanzania failed to recognize the "critical importance of the private sector participating actively in the agricultural production," and that SAGCOT now properly anchors this

[4] Examples include the New Alliance for Food Security and Nutrition, the Comprehensive Africa Agriculture Development Programme (CAADP), Alliance for a Green Revolution in Africa (AGRA), Grow Africa, as well as numerous national plans (see e.gs. Daño (2007) and Nogales (2014) for an overview).

[5] Later, in 2013, the government announced the 'Big Results Now' initiative, aiming, among other things, to establish a number of large-scale commercial farms to grow rice and sugarcane by 2015/16; however, as of November 2016, none of these have been implemented (Chung, 2017).

[6] These efforts resulted in the establishment of the Tanzania Agriculture Partnership (TAP) – a collaboration between Yara and the Agriculture Council of Tanzania (ACT), as well as support from Prorustica and the Norwegian Government. TAP is often perceived to be the forerunner of SAGCOT.

[7] These companies are: AGCO Corporation, A.P. Møller-Maersk, BASF, Bayer CropScience, Bunge, Cargill, CF Industries Holdings, Coca-Cola Company, Diaego, DuPont, General Mills, Heineken, METRO Group, Mondelez International, Monsanto Company, The Mosaic Company, Nestlé, Novozymes, PepsiCo, Rabobank, International, Royal DSM, SABMiller, Sinar Mas Agribusiness and Food, Swiss Reinsurance Company, Syngenta International, Unilever, Wal-Mart and Yara International (Nogales, 2014).

[8] The other one is the Beira Agriculture Growth Corridor (BAGC), in Mozambique.

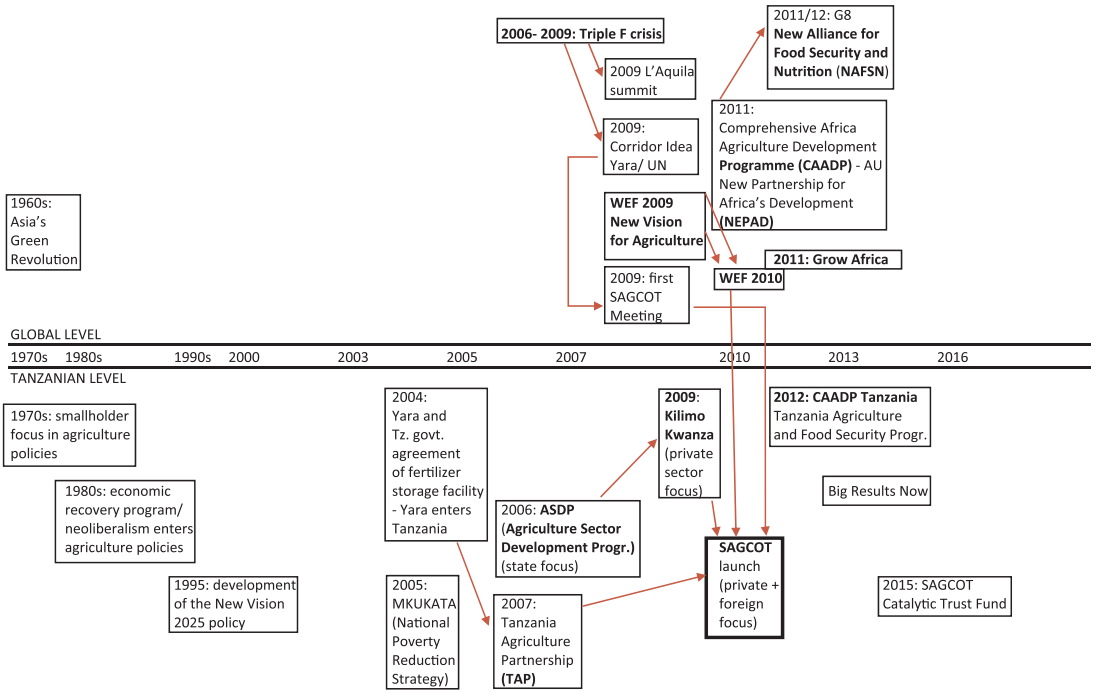

Fig. 2. Linkages and events leading up to the formation of SAGCOT.

involvement (SAGCOT, 2011, p. 5).

SAGCOT is a good example of how the green economy discourse has been able to attract interest from the business sector in a way that the sustainable development school never managed to achieve. During the first few years (2010–2013), SAGCOT attracted more than 80 partners. This focus on business opportunities is also the most distinguishing factor between sustainable development and the green economy, as economic growth has been foregrounded in the latter concept.

SAGCOT was heavily influenced by the growth narrative within the green economy agenda (OECD, 2009) when it was initiated. Indeed, SAGCOT states clearly that agriculture green growth should be mainstreamed into its investment strategies in order to "position the Southern Corridor as a place that attracts 'best in class' investors and innovators that integrate sustainability into their business plans" (SAGCOT, 2012, p. iv). According to the OECD (2011, p. 4), "green growth means fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies." This approach emphasizes the need to create economic growth and enhance the possibilities of utilizing the environment to this end. In SAGCOT, "Agriculture Green Growth (AGG) [is a strategy] to sustainably intensify agriculture […], while simultaneously conserving the natural resource base" (SAGCOT, 2012, p. ii). This rhetoric is apparent in SAGCOT's focus on creating investments and economic growth based on the utilization of natural resources (i.e. farmland and crops) and the monetarization of natural resources (i.e. Payment for Ecosystem Services (PES), conservation, eco-tourism). Moreover, the Blueprint identifies several so-called 'early-win' investment opportunities for fast profit, and spends several chapters arguing why investors should engage in Tanzania. This investment focus is also illustrated by the fact that out of a 70 million USD grant allocated to SAGCOT by the World Bank in 2016 (the first big grant they have received), more than one-third will go directly to 'investment facilitation' at the SAGCOT center and the Tanzania Investment Centre (TIC).[9]

The reliance on the growth narrative in the implementation of the green economy shows that the green economy and green growth discourses are just new ways of maintaining neoliberal capitalism (Wanner, 2015). Multi-national agri-corporations sought to open up new markets for their products partly as a response to the financial crisis and the related rise in food prices – an important factor in the establishment of SAGCOT. When faced with crisis from 2007 to 2009, actors started looking outwards for new arenas in which to invest. According to GRAIN (2015, p. 3), fertilizer companies such as Yara "moved aggressively to control the international debate on agriculture and climate change, and to position themselves as a necessary part of the solution." This can illustrate Harvey's (1981, 2001b) notion of a 'spatial fix,' referring to "capitalism's insatiable drive to resolve its inner crisis tendencies by geographical expansion and geographical restructuring" (Harvey, 2001a, p. 24). This might illustrate capitalism's tendency towards expansion for survival, but is also interesting to analyze through the lens of the green economy discourse, as well as the formation of SAGCOT. Indeed, the establishment of SAGCOT was directly influenced by the global trends in the aftermath of the triple F crisis.[10]

The ways in which SAGCOT was created can hence be described as a policy process heavily guided by prevailing global discourses. Dryzek (2013) holds that environmental issues are interconnected through institutional interplay, mechanisms, structures and actors. He further argues that discourses can "embody power in the way they condition

[9] According to key informants in SAGCOT: Informant 66, 25.10.16, and informant 72, 03.11.16.

[10] According to SAGCOT CEO Jennifer Baarn, official speech at the SAGCOT annual forum dinner, 11.03.17, and among others informant 44, 20.04.16, representing the donor community, and informant 14, 06.11.15, representing Yara.

the perceptions and values of those subject to them, such that some interests are advanced, others suppressed" (Dryzek, 2013, p. 10). The concept of "discourse institutionalization" is used by Hajer (1995, p. 61) to explain when a "given discourse is translated into institutional arrangements." This relates to Adger et al.'s (2001, p. 681) argument that there is a "*global environmental management* discourse representing a technocratic worldview by which […] external policy interventions can solve global environmental dilemmas." This is called 'cockpit-ism' by Hajer et al. (2015, p. 1652), referring to "the illusion that top-down steering by governments and intergovernmental organizations alone can address global problems." Hajer et al. (2015) argue that this applies to the post Rio + 20 green economy in general, as top-down, but it also relates to how the green economy manifests via initiatives such as SAGCOT. Following Hajer's (1995) definitions, SAGCOT is a good example of discourse institutionalization and of a discourse, in this case the green economy, becoming hegemonic, as this happens when theoretical concepts are translated into both concrete politics and institutional arrangements (Hajer, 1995, p. 61).[11]

Discourse institutionalization relates furthermore to notions of governmentality, here seen as an analytic tool to explain how discourses have a conscious or un-conscious influence over the governing processes in the implementation of various development schemes (Foucault, 1991; Dean, 2010). Governmentality is seen by Foucault (1991) as the 'conduct of conduct,' or a governing technique and tactic (Burchell et al., 1991), and can be understood as a way of exercising power, often related to top-down implementation of policies, as in the case of SAGCOT (Scott, 1998; Mosse, 2005; Ferguson, 1994). According to Li (2007, p. 19), power operates at a distance through governmentality. It is therefore useful in understanding how the green economy is institutionalized in the case of SAGCOT as discussed in this paper.

A useful and expanded notion of governmentality in environmental governance, can be found in the term 'green governmentality' (Rutherford, 2007; Parr, 2016), which refers to a way of analyzing how power is being exercised in environmental governance through discourses (see also Adger et al., 2001), and 'environmentality' (Luke, 1999; Fletcher, 2017, see also Valdivia (2015) on 'eco-governmentality'). These interrelated terms can shed light on how the green economy is being implemented and institutionalized through top-down steering affected by global power patterns. Agrawal (2005) stresses that power, knowledge, institutions and subjectivities are essential in understanding changes in environmental governance. Elements of green governmentality, such as power, environmental governance and discourse influence, can explain how SAGCOT came into being in the first place, and secondly, how SAGCOT became *green* as illustrated in this paper.

The case of SAGCOT as green economy implementation is an example of what Corson et al. (2013) call 'grabbing green' (not to be confused with the well-known term 'green grabbing' (Fairhead et al., 2012)). According to Corson et al. (2013, p. 2), "grabbing green" refers to how the environment "is being used instrumentally by various actors to extend the potential for capital accumulation under the auspices of being green." I regard this 'grabbing green' as a deliberate way of manifesting the green economy in practice in the case of SAGCOT. Indeed, as Corson et al. (2013, p. 5) argue, grabbing green is "both a manifestation of environmentalism's transformation and a constitutive force in producing the Green Economy."

3.2. From investment opportunity to 'inclusive green growth:'[12] the greening of SAGCOT

The fact that growth has become the mantra in green economy thinking and practice (OECD, 2015), is key in understanding how the green economy manifests in practice. According to Dale et al. (2016, p. 6), green growth has "persuasive power" because 'it constitutes a plea for sustainable development without tears,'" and represents a 'quick fix' in fulfilling environmental regulations and agreements. This means that where sustainable development used to be a policy companies had to follow, at the expense of the economic growth rate they aimed for, green economy offers an environmental policy framework companies can more easily adhere to, based on the appealing growth rhetoric.

SAGCOT was, as demonstrated, initiated from and relied heavily on the 'growth' focus taken from the global green economy discourse from the very beginning, but it was not *green* growth. Neither did SAGCOT have an obvious green economy profile in its early years. It was predominantly initiated as an agricultural investment initiative, and the policy framework was more concerned with investments in farming programs, techniques and strategies. Despite this, SAGCOT has, since its launch and increasingly today, been presented and championed as a green economy, or green growth, initiative. In a side-event at Rio + 20 in 2012, organized by the World Wide Fund for Nature (WWF) and AfDB, the Tanzanian Minister of State at the Vice President's Office for the Environment, presented SAGCOT as a green economy initiative that Tanzania would "benefit immensely" from (Kabubu, 2012). It would be a "laboratory for testing and implementing [the] concept [of green growth which] will provide valuable lessons for the agriculture sector in Africa" (Kabubu, 2012), illustrating the visions of transforming and commercializing African agriculture through corridors at large. The Minister referred to the newly published SAGCOT 'Greenprint' (SAGCOT, 2012), and emphasized that Tanzania is now embarking on the road to implementing a green economy.

SAGCOT had a focus on private investments in the agricultural sector in the early stages (2009–2011), but was soon re-shaped to fit with the prevailing green economy discourse. The first SAGCOT Concept note (2009) included a vision to attract and support investment partners, and paved the way for the 2011 Investment Blueprint (Jenkins, 2012). Whereas the Blueprint describes how smallholders will be commercialized through foreign investments, presents details of, and offers thousands of hectares of "available plots" for large-scale investments and so-called "early wins," the Greenprint aims to "refine the SAGCOT strategy to ensure that development in the Corridor is environmentally sustainable, socially equitable, and economically feasible" (SAGCOT, 2012, p. ii). This is based on the recognition that:

> …society now looks to agricultural landscapes to provide a range of goods and services – not just food – and that markets are increasingly rewarding farmers for doing so. In this way, resource conservation, efficiency, and sustainability are not costs of doing business; on the contrary, they are woven into the core logic and business case of all new land-based investment
>
> (SAGCOT, 2012, p. ii).

When SAGCOT first adopted the 'green' profile, it was through the Greenprint document (SAGCOT, 2012). Interestingly, however, the Greenprint was initially meant as a strategy for landscape and biodiversity analysis of the geographical areas that would be affected by SAGCOT. Green growth and the green economy did not form any reference points in this work.[13] During its development, the Greenprint was however eventually mainstreamed with an overall green economy approach, including strategies regarding ecotourism, conservation and biofuels, as well as PES. Indeed, the Greenprint stresses that a green growth approach is necessary to achieve the goals of SAGCOT, and that this is part of the green economy strategy which actors around the world are striving to implement. SAGCOT further states that:

…the Green Growth approach involves engaging a wide range of

[11] There are however examples of local resistance to SAGCOT (and to the green economy in general), so the green economy discourse is not completely hegemonic.

[12] SAGCOT (2011, 2017).

[13] According to informant 44, 20.04.16, who was involved in initiating the Greenprint.

> investors, going well beyond 'business-as-usual.' They include new sustainable agricultural investment funds, climate mitigation investment funds, international financial institutions with screening criteria for sustainability, and international companies that have incorporated environmental and social values into their business models.
>
> (SAGCOT, 2012, p. iii)

While the first Greenprint draft (SAGCOT, 2012) was entitled *A Green Growth Investment Framework,* the final Greenprint, which came one year later, changed focus and title to *A Framework for Agriculture Green Growth* (SAGCOT, 2013). The content is similar with only slight changes in wording, but these changes have implications for the interpretation of SAGCOT – whether it is regarded as an *agricultural* initiative or an *environmental* initiative. As the focus in the title shifted from 'investment' to 'agriculture green growth,' so the branding of SAGCOT changed direction towards the increasingly popular 'green growth' discourse instead of the business-opportunity narrative it started off with. At the SAGCOT Partnership Forum in 2017, a four-page document entitled *Creating a Definition of Inclusive Green Growth in SAGCOT* was distributed among the 500 participants. Interestingly, there was no discussion of these terms in any of the plenary sessions, nor did this document seem to serve any purpose other than simply informing the audience about SAGCOT's profile, and, obviously, associated branding of the initiative as being both green and inclusive. The document states that SAGCOT is committed to a mission of "inclusive, commercially successful agri-businesses that will benefit the region's small-scale farmers, and in so doing, improve food security, reduce poverty and ensure environmental sustainability" (SAGCOT, 2017, p. 1). It lists elements of 'inclusive green growth' in agriculture: inclusivity, environmental management, and sustainable business strategies. Interestingly, the wording has again changed from 'agriculture green growth' to 'inclusive green growth.' Indeed, according to a social and environmental specialist in SAGCOT: "*We are seeing SAGCOT moving from agricultural production to more green growth activities.*"[14]

This move contributed to firstly, gaining positive attention from a broader audience, including environmental organizations, activists and initiatives, as well as secondly, increased possibilities for attracting donor money. One informant, representing the donor community at the time SAGCOT was formed, said *"I guess [the aim] really was both increased production and sustainability… but you know, for me who sat there listening to their proposals, they know what they need to say to get positive responses. They say the right things."*[15] Another one said: *"They are running wherever they can get support, and the holistic approach suffers."*[16] This is supported by evidence from several other informants, who said that although environmental sustainability and green growth was not at the core of SAGCOT in 2010–12, today it is.[17]

The green economy's pillar of creating *economic* growth, however, was central in the creation of SAGCOT, and the second – alleviating poverty – is also clear in its policy and visions. However, the third green economy pillar – assuring environmental sustainability – seems to have been added, or at best re-interpreted, in order for SAGCOT to comply with prevailing discourses. One informant said that SAGCOT now has a green profile, in order to 'fit' with "*whichever prevailing trends there are.*"[18] This was backed by information from several informants, among others one member of the SAGCOT Board who was also involved in its formation, who said: *"I cannot […] lie [and say] that when we took off, [green growth] was very much on the agenda. But we have had to go through a learning curve, bringing on board various stakeholders, we brought on board the environmentalists. Yes, it has changed."*[19]

In sum, by adopting the 'green growth' label, SAGCOT succeeded in attracting a huge number of investors and partners from new sectors, such as environmental organizations, as well as becoming more attractive to companies that sought to fulfill environmental obligations in their investments. Regardless of the intended purposes, this changed SAGCOT's profile from primarily being a business investment to focusing primarily on environmental sustainability. This also anchors the green economy's aim of bringing the environment and business together. Since green growth is vague as a policy term, it can be incorporated into almost any policy or project, because actors themselves can define what 'green' means. Under this 'green growth' rhetoric, powerful actors have managed to establish schemes that have been framed as environmentally sustainable, but which in reality are often business-as-usual. 'Growth' is hence increasingly framed as 'green,' without actors really having to tackle the problems of environmentally unsustainable production and consumption patterns (Hoffman, 2016).

3.3. Formation and institutionalization of SAGCOT through the lens of institutional bricolage

The greening of SAGCOT illustrates the theory of institutional *bricolage* (Cleaver, 2012; Cerny, 2010). *Bricolage* is useful in explaining how various pieces of the green economy were re-shaped, pieced-and-patched and interpreted, to blend with, or fit on top of existing institutions and initiatives, or policies, such as SAGCOT.

The formation of institutions based on changing situations, is hardly surprising. However, in many cases, the creation of new institutions takes place by a 'piece-and-patch' process; meaning that actors may take 'whatever' there is at hand to use in the formation of something new (Cleaver, 2012). This is at the core in *bricolage* thinking, where actors apply almost a 'do-it-yourself' kind of approach in the creation of institutions. The formation of SAGCOT illustrates this. Elements of a green revolution policy of increased agricultural production based on access to inputs, such as fertilizers and improved seeds, formed the foundation for initiating SAGCOT, as well as the overall agriculture corridor concept. This was mixed with neoliberalism and the triple F crisis, and merged to create something new and different – namely the concept of 'agriculture green growth.' This was added on top of the agribusiness initiative from which SAGCOT was born, and on top of existing Tanzanian agricultural policies. As shown by the findings of Cleaver (2012) and Cerny (2010), this represents a typical 'blending' of arrangements and policies.

The *bricoleurs* in the process of the SAGCOT initiation were powerful key individuals, also coined the '*early champions*' by several informants,[20] who, based on the changing global environment (e.g. the triple F crisis), saw an opportunity to 'grab' the green discourse and 'create something new' which would generate economic growth and profit. As discussed, these *bricoleurs* were representatives from the World Bank, Norfund, AfDB, TIC and the Tanzanian Government, but most importantly, Yara. As Lohmann (2016, p. 42) argues; "in practice, green growth is not about solving ecological crises but rather re-interpreting them, creating new opportunities to take business advantage of them, and diffusing responsibility for them." Thus, the green economy focuses more on stimulating economic growth through investments, rather than on the *green* per se. The *bricoleurs* who continued with the implementation of the corridor in Tanzania, were individuals who were positioned at the newly established SAGCOT center, in collaboration with various government agencies, private sector actors, and the multi-national level actors. A periodization in the *bricolage* process can be shown between the initial stages of SAGCOT (2007–2010) and the later *institutionalization* of the initiative (2010–2013).

[14] Informant 66, 25.10.16.
[15] Informant 84, 14.02.17.
[16] Informant 14, 06.11.15.
[17] Personal communication with several key persons in Yara International 06.11.15, 10.03.16 and 27.04.16.
[18] Informant 44, 20.04.16.
[19] Informant 79, 07.11.16.
[20] Informant 38 (10.03.16); informant 75 (04.11.16) and informant 79 (07.11.16).

An important consequence of the *bricolage* type of forming and reshaping of SAGCOT is that the content and structure of the initial ideas behind SAGCOT changed during the institutionalization process, but also that the green economy itself was re-interpreted to fit with the 'greening' of the initiative. In this way, the involved actors, or *bricoleurs,* can form and define the content of the initiative and its core concepts as they wish. This may lead to unintended outcomes, as the *bricoleurs* have varying competencies in creating these new arrangements. As previously discussed, in the case of SAGCOT, this led to misunderstandings and re-interpretations of several key concepts within SAGCOT. Since the 'green economy' definitions are rather broad and open for interpretation, it is easy for actors themselves to define what counts as 'green' (or not), and hence also to define their own agendas and outcomes. Indeed, many of my informants defined the green part of SAGCOT in quite different ways, varying from "*a biodiversity safeguard*," "*a geographical landscape analysis*" and "*sustainable economy*," to "*green and inclusive growth for local communities*," "*climate measures*" and "*climate smart agriculture*." In this case, and many others, the real meaning of *green* is lost along the way, ending up as describing only how natural resources should be utilized to create economic growth, thus focusing mainly on the needs and objectives of investors.

Cerny (2010, p. 175) uses the *bricolage* concept at the level of institutional politics, and argues that the architecture of global institutions is becoming "highly fragmented, disorganized, and tangled," resulting in it being "ineffective, inefficient, riddled with gaps, and even counterproductive." He argues that the process of *bricolage* is accelerating at the transnational level, resulting in "ad hoc experiments" being piled "on top of each other" (Cerny, 2010, p. 177). Such 'piece-and-patch' blending of institutions and policies is legitimized by the involvement of authoritative sources in Tanzania (namely, the government), and also by the green economy discourse itself. This is key in greenwashing, as *green* becomes *the* legitimizing power (meaning that *green* as a term itself has become so important it becomes persuasive), and is also evident at the discursive level, as environmental sustainability and climate measures have been moved to the forefront of most government policy agendas during the last five to ten years. Indeed, one of the main criticisms of the green economy in general is that unequal power relations and social hierarchies are largely left out of the agenda in practice.

Many green economy initiatives are driven and implemented as collaborations between state actors, elites and multinational or foreign actors, and hence often represent a "blend of government-led green-economy strategies and 'private regimes'" in economic cooperation and development (Bailey and Caprotti, 2014, p. 1799). The actors involved may have different aims and means, but the policies and projects are nonetheless coordinated and placed in the same 'green' discursive framing or box. Bailey and Caprotti (2014) hold that it is important to examine the organization of green economy implementation at all levels in order to understand the driving dynamics and forces, and how environmental governance is being shaped by various discourses. According to Cleaver (2012, p. 45), actors consciously or unconsciously "navigate the institutional landscape." She argues that legitimacy or meaning does not just happen – rather there is "an iterative relationship between *bricoleurs* and the institutions they shape and are shaped by" (my emphasis). This was exemplified in the creation and institutionalization of SAGCOT, as it was largely colored by the agribusiness agendas of the involved actors and institutions.

Scoones et al. (2015, p. 1) also stress the necessity of turning attention towards the political situations which are *driving* the green transformation, especially on "questions of institutional change and policy, as well as more profound shifts in political power." With the formation of SAGCOT, organization, policy and power were shifted from the Tanzanian Government to multi-national actors at the global level, as the SAGCOT initiators and board members are mainly from outside Tanzania. This relates to the goal of bringing in the multinational level in Tanzanian agriculture, as outlined in the SAGCOT Blueprint and as stated by the then president Kikwete. This also relates to Agrawal's (2005, p. 202) finding that "reorganization of institutional arrangements has facilitated changes in environmental practices and levels of involvement in government," demonstrating how global discourses can influence national policies and governance, and, in the case of Tanzania, it illustrates how multinational companies increased their power through SAGCOT.

3.4. Implications of the bricolage formation and greening of SAGCOT

In adopting the 'green growth' label, as previously discussed, SAGCOT succeeded in attracting a huge number of investors and partners from new sectors such as environmental organizations, as well as several big conservation agencies and environmental NGOs.[21] Regardless of the intended purposes, this changed SAGCOT's profile from business investment to environmental sustainability, and strengthened SAGCOT's self-proclaimed green profile.

However, hardly anything changed on the ground. These partnerships are still far from materializing in practice.[22] Although these partnerships were celebrated during initial interviews as 'flagships' that would lead the 'green' road of SAGCOT,[23] according to some of the partners themselves at that time, they were *"not really partners in practice, only maybe in the future."* Some of the envisaged green projects, such as Payment for Ecosystem Services (PES) and water catchment control programs, are now starting to operate, but to a rather limited extent compared to the proclaimed goals and intentions in the policy documents (SAGCOT, 2012).[24] From my understanding, many actors have been listed as partners on rather thin grounds, such as initial discussions or by being partners in affiliated schemes. This shows that SAGCOT's 'green' profile is perhaps not very substantial in practice. Indeed, on the question as to whether SAGCOT is a green growth initiative today, a key informant responded: *"Green growth mainly means sustainable agriculture."*[25] Another informant said: *"SAGCOT is a unique initiative. We should have more corridors, taking the approach that agriculture is business, because THAT is what SAGCOT is about! The green is only a safeguard."*[26] Also literature points to the importance of the business focus behind agriculture corridors. While agriculture corridors may bring infrastructural development and boost economic activity in some areas, evidence points to the risk of "corridors of power" being created (Byiers and Rampa, 2013) where smallholders lose, while multinational corporations benefit (Paul and Steinbrecher, 2013), or as manifestations of the corporate food regime (Bergius, 2014; McMichael, 2013). Indeed, according to Paul and Steinbrecher (2013, p. 1), African agricultural growth corridors are "designed to facilitate the conversion of millions of hectares of land into industrial agriculture […] led by private companies." One informant from a Tanzanian research institute, said: *"I am concerned about the corridor, because that is a new form of land grabbing."*[27] This was supported by many others, especially the Tanzanian farmers' association MVIWATA, who expressed concern about SAGCOT based on the drivers and motivations behind it.[28]

Several informants also expressed concern about SAGCOT being

[21] For example, the International Union for Conservation of Nature (IUCN), the WWF and the Nature Conservancy. A 2016 list of partners can be found at: http://www.sagcot.com/fileadmin/documents/2016/SAGCOT_Partner_List_External_04.05._2016_TM.pdf Accessed 11.07.17.

[22] E-mail correspondence with TNC, WWF and AWF, autumn 2014.

[23] Informant 4, 07.05.15, SAGCOT social and environmental specialist.

[24] Informant 66, 25.10.16 (SAGCOT staff); informant 68, 28.10.16 (TNC employee); informant 83, 22.11.16 (IUCN employee), and informant 76, 04.11.16 (CEO of key SAGCOT partner company).

[25] Informant 88, 08.03.17, head of the SAGCOT board.

[26] Informant 75, 04.11.16, former CEO of the President's Delivery Bureau and Permanent Secretary to the Prime Minister's office (PMO), who was heavily involved in the formation of SAGCOT.

[27] Informant 10, 12.08.15.

[28] Informant 78, 07.11.16.

championed internationally as a large-scale green development initiative, because they, based on their involvement in the initial stages, did not recognize this focus.[29] One informant said: *"SAGCOT was not supposed to be a development project, it was only a small investment portfolio. People have misinterpreted it as something much bigger, hence the expectations have been high whilst results, so far, have been low."*[30] Importantly, however, contrary to these statements, SAGCOT *has* to an increasing extent focused on the impressive development impacts they expect to see in poverty alleviation, job creation, infrastructure development and economic growth, especially for the millions of smallholders in the region. Also, the then Norwegian Minister for International Development and the Environment (2005–2012, at the time SAGCOT was formed), and today Executive Director of UNEP, said in an interview with me that the Norwegian government supported SAGCOT exclusively on the basis of the potential positive development effects they saw from the initiative.[31] SAGCOT is indeed branding the initiative as bigger than it is. Very few projects had materialized on the ground as of June 2017, but on July 3rd 2017, the CEO of SAGCOT, Geoffrey Kirenga, claimed that it has been a huge success ready to be rolled out across the whole country (The Citizen, 2017).

Another good example of the implications of green economy re-interpretation and 'piece-and-patch' implementation, is the confusion about the 'inclusiveness' concept in SAGCOT. SAGCOT has to an increasing extent used 'inclusiveness' in their policy documents (SAGCOT, 2013, 2017). This is surprisingly often interpreted as meaning the inclusion of both public and private sectors.[32] When I discussed this with one key informant from the Tanzanian branch of an international development NGO, she said: "*No that's not inclusive… and I think that is why we keep going back and forth. Who are you talking about really? If you are talking about inclusiveness in terms of bringing private sector and communities together, how are you doing it? Because these are two different groups. One group has more power and money and connections. The other group has nothing, so when you are talking about inclusive, what does that mean?*"[33] Indeed, actors define green economy approaches differently based on their various backgrounds and the result is a patchwork of different, sometimes contrasting, agendas. This relates to how Cleaver (2012) describes the actions of *bricoleurs*. Actors involved in the shaping of new initiatives, as in the institutionalization of SAGCOT, can in a *bricolage* process easily prioritize some agendas and exclude others in the creation of new policies. This can mask underlying and contrasting goals as well as obscure both practices and power patterns among those involved. According to Cleaver (2012, p. 48; p. 49), this is an "ability to exercise agency," shaped by "authoritative processes" and "relations of power." Moreover, "the taken-for-granted elements of institutions and the need for them to be socially workable ensure the reproduction of social inequalities" (Cleaver, 2012, p. 49).

The findings and statements by informants discussed above illustrate how SAGCOT has been showcased as greener than it has been in practice so far. There is however an important distinction in the way SAGCOT has been branded. At the national and institutional level (everything below the SAGCOT board, which includes the SAGCOT center), informants have largely described SAGCOT as an agriculture partnership, whilst at the global and multi-national level, SAGCOT has basically been profiled as a green economy and green growth initiative.[34] This may be referred to as a form of 'greenwashing.' This means that SAGCOT has been branded primarily as a green economy initiative rather than as an agri-investment or green revolution scheme. This outcome can be attributed to several parallel influences and processes that took place and which may be discussed along the lines of discourse institutionalization and governmentality – illustrating a certain 'grabbing green' process, as well as institutional *bricolage*. This demonstrates both 'grabbing green' and 'greenwashing,' and these processes were carried out by separate actors and by separate means. I argue that the grabbing of the green discourse was largely a deliberate process in which *bricoleurs* at the multi-national level saw an opportunity to make profit in an emerging space, whilst the subsequent greenwashing of SAGCOT happened more as a result of this 'grabbing green,' driven by the need to 're-shape' the initiative so that it could 'fit' with the prevailing discourse. Based on selected elements from the green economy discourse (namely the growth narrative), SAGCOT was 'pieced-and-patched' together in a 'created space' (Harvey, 1981, 2001b).

As illustrated above, terminology is used in mixed and contradictory ways, and realities can be masked using the power of language and metaphors (Dryzek, 2013). This is also the case for implementation of the green economy, and relates to what Bailey and Caprotti (2014, p. 1799) refers to as a "mosaic of practices," and what Crang (1992, p. 537) discusses as "the polyphony of politics," or "polyphonic ethnography," referring to processes in the production and construction of policy texts. In sum, this blended mosaic of power structures and differing interests among various stakeholders represents one of the main problems in implementing the green economy in practice, and SAGCOT can serve as an example of this.

4. Conclusion

In Tanzania, the initial SAGCOT ideas were concerned with agricultural investment opportunities and green growth narratives, created at the multi-national level in the aftermath of the triple F crisis, and implemented in cooperation with state actors. The initiative rapidly took on a 'green' profile, with branding reflecting first 'green growth investment' and later 'agriculture green growth.' Today, SAGCOT uses slogans such as 'inclusive green growth' – however without corresponding changes to the content and practices of the initiative on the ground. Supported by data from informants and documents, this paper demonstrates that SAGCOT has gone through a process of re-shaping its profile to fit in with the global green economy and green growth discourses, which in turn, have also been re-interpreted in the institutionalization of SAGCOT. SAGCOT is championed at the global level as a good example of how the green economy can manifest in practice, and this paper illustrates how such green economy implementation comes to life in actual arrangements in a developing country. SAGCOT's policy is not a good representative of inclusive green growth, but rather of the global rush for land and how the agribusiness sector finds new, attractive labels to frame their interest and investments within.

Through processes of institutional *bricolage*, namely the piecing-and-patching together of institutions, discursive legitimation, and a blending (or 'melding' together) of practices and policies – SAGCOT has taken on a profile that differs from its original purpose. Institutional *bricolage* connects with the concept of governmentality through power patterns, and is useful in order to "understand agency, practices and mechanisms as shaped by layers of power, operating through a variety of channels" (2012, p. 42). Cleaver (2012) explains how institutions are created and re-shaped, often as a response to a changing situation (for example, SAGCOT, as described above). This piece-and-patch process has consequences for the implementation of new institutions and initiatives, as a result of radical policy changes that may occur during the process, also as described in this paper. A link can be drawn with the political ecology literature, which emphasizes power relations in environmental management and governance and the need to investigate these (Adger et al., 2001).

This paper identifies two distinct, but closely related, processes: i)

[29] Informant 38, 10.03.16.
[30] Informant 85, 01.03.17.
[31] Informant 17, 18.12.15.
[32] This was outlined by several informants (66 (25.10.16); 74 (04.11.16); 75 (04.11.16) and 79 (07.11.16)).
[33] Informant 80, 08.11.16.
[34] Informant 8c (08.08.15); informant 17 (18.12.16); informant 37 (08.03.16); informant 38 (10.03.16) and informant 88 (08.03.17).

'grabbing' the green discourse in the initial stages of forming the initiative; and subsequently ii) 'greenwashing' SAGCOT in its process of institutionalization in order to fit with this discourse and become more attractive for actors such as partners, investors and donors. It argue that the grabbing green process in the formation of SAGCOT largely paved the way for subsequent greenwashing. The consequence of these processes is that powerful actors have managed to brand SAGCOT as something which is much more appealing to donors and policy-makers, thus distracting attention from (and possibly masking) the intentions and aims behind the partnership, as initiated by the multi-national agribusiness sector.

SAGCOT and its institutionalization is a good examples of how green economy strategies in the global South are often led nationally, but within networks of different actors "seeking to capitalise on opportunities offered by green economy agendas" (Bailey and Caprotti, 2014, p. 1799). The findings of this study illustrate what Bailey and Caprotti (2014, p. 1799) calls a "mosaic of practices that displays both synergistic components and dysfunctional overlaps and which has hazy systems of accountability for ensuring consistency between higher level visions of the green economy visions and on-the-ground green-economy strategies."

It is of crucial importance to investigate drivers and motivations behind such large-scale agricultural investment schemes that are being implemented across the global South in the name of the green economy. It is necessary to understand the potential outcomes and implications for governance at the national level, and for the millions of smallholders at the local level. In sum, I argue that the incorporation of the 'green' concept and the interchangeable use of various 'green' terms and concepts which are not sufficiently or properly defined in SAGCOT, represent an overall process of greenwashing of the agri-business sector's drive towards penetrating the African continent in boosting a new, green revolution in Africa. This argument can provide valuable insights into how the green economy manifests on the ground in a developing country.

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PAPER 2

Towards a green modernization development discourse: the new green revolution in Africa

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Abstract

Since the Rio+20 conference, 'greening' economies and growth has been key in international politics. Leading policy actors and businesses frame the emerging green economy as an opportunity to realize a triple-bottom line – people, planet and profit – and support sustainable development. In practice, two key trends stand out: in the global North, the main component of the green shift seems to imply technological and market-based solutions in the renewable energy sector. While this is also important in the global South, here green economy implementation is often interpreted as environmental protection along with modernization of, and shifts in access to and control over, natural resources ('green sectors'). In the case of the latter, combined with persisting high rates of poverty, we claim that the post-Rio+20 context has revitalized a 'green' version of *modernization* to become the leading discourse and approach within international development; namely *green modernization.* A wide range of development initiatives across the global South – with significant support from international businesses amidst a general private turn of aid – are framed in this light. We use the new, Green Revolution in Africa to illustrate how modernization discourses are reasserted under the green economy. What is new at the current conjuncture is the way in which powerful actors adopt and promote green narratives around long-standing modernization ideas. They recast the modernization trope as 'green.' In particular, we focus our discussion on three linked components; technology and 'productivism', the role of capital and 'underutilized' resources, and, lastly, mobility of land and people.

Keywords: green economy; green modernization; the new Green Revolution in Africa; agri-business; climate smart agriculture; development discourse

Résumé

Depuis la conférence Rio + 20, les économies «vertes» et la croissance économique ont été essentielles dans la politique internationale. Les principaux acteurs politiques et les entreprises considèrent l'économie verte émergente comme une opportunité de réaliser un triple résultat - pour les personnes, la planète et les profits - et de soutenir le développement durable. En pratique, deux tendances clés se dégagent: dans le Nord, la principale composante du virage vert semble impliquer des solutions technologiques et fondées sur le marché dans le secteur des énergies renouvelables. Bien que cela soit également important dans les pays du Sud, la mise en œuvre de l'économie verte est souvent interprétée comme une protection de l'environnement accompagnée d'une modernisation et de modifications de l'accès aux ressources naturelles et de leur contrôle

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(«secteurs verts»). Dans le cas de ce dernier, associé à des taux de pauvreté toujours élevés, nous affirmons que le contexte post-Rio + 20 a revitalisé une version «verte» de la modernisation pour devenir le discours et l'approche phare du développement international; à savoir la modernisation verte. Un large éventail d'initiatives de développement dans les pays du Sud - avec l'appui important d'entreprises internationales dans le contexte d'une aide privée générale - s'inscrit dans cette perspective. Nous utilisons la nouvelle révolution verte en Afrique pour illustrer la manière dont les discours sur la modernisation sont réaffirmés dans le cadre de l'économie verte. Ce qui est nouveau dans la conjoncture actuelle est la manière dont des acteurs puissants adoptent et promeuvent des récits écologiques autour d'idées de modernisation de longue date. Ils ont qualifié le trope de modernisation de «vert». En particulier, nous concentrons notre discussion sur trois composantes liées; la technologie et le «productivisme», le rôle du capital et des ressources «sous-utilisées» et, enfin, la mobilité des terres et des personnes.

Mots-clés: économie verte; modernisation verte; la nouvelle révolution verte en Afrique; secteur agroalimentaire; agriculture intelligente face au climat; discours de développement

Resumen

A partir de la reunión de Rio+20, las economías y el crecimiento "verdes" han sido claves en la política internacional. Importantes actores de políticas y negocios, plantean la naciente economía verde como una oportunidad para conseguir un triple resultado - gente, planeta y ganancia - y respaldar el desarrollo sostenible. En la práctica, destacan dos corrientes principales: en el Hemisferio Norte, el principal componente del giro verde parece implicar para el sector de la energías renovables, soluciones tecnológicas y basadas en el mercado. Mientras que esto también es importante en el Hemisferio Sur, ahí la implementación de la economía verde es a menudo interpretada como protección del medio ambiente a la par de la modernización de, y los cambios en el acceso y control de recursos naturales ("sectores verdes"). Afirmamos que este último, combinado con los altos índices de pobreza que persisten, ha revitalizado una versión "verde" de la *modernización*, para convertirse en el principal discurso y aproximación dentro del desarrollo internacional, a saber la *modernización verde*, en el contexto posterior a Rio+20. Una amplia variedad de iniciativas de desarrollo en el Hemisferio Sur - con importante apoyo de negocios internacionales en un generalizado giro privado de los apoyos - se encuentran en el marco de este contexto. Nos basamos en la nueva Revolución Verde en África para ilustrar cómo los discursos de modernización se han reafirmado bajo la economía verde. Lo novedoso en esta coyuntura es la manera en que los actores poderosos adoptan e impulsan narrativas verdes sobre antiguas ideas de modernización, y hacen un rediseño del tropo de modernización como "verde". Particularmente enfocamos nuestra discusión en tres componentes vinculados: tecnología y "productivismo", el papel del capital y los recursos "subutilizados", y finalmente, la movilidad de la tierra y la gente.

Palabras clave: economía verde, modernización verde, la nueva Revolución Verde en África, agroindustria, agricultura climáticamente inteligente, discurso sobre el desarrollo

1. Introduction

"We need a Green Revolution in a Green Economy, but one with a capital G" said Achim Steiner, former Executive Director of the United Nations Environment Program (Deen 2009). His remarks – presented at the Global Ministerial Environment Forum in Nairobi in 2009 during the launch of the report *The environmental food crisis* – represents an emerging trend combining the green economy, which became the main focus of the Rio+20 conference in 2012, with calls for a new, Green Revolution in Africa. This conceptual fusion – which resonated across the development industry as well as the private sector – proposes a 'greener' repetition of the original Green Revolution (the Consultative Group of International Agriculture Research (CGIAR) 1996; Conway 1997) to feed a growing world population projected to reach 9 billion by 2050 sustainably (Gates 2009; Horlings and Marsden 2011; Patel 2012).

Steiner's remarks reflect a more general environmental concern in recent decades. Particularly since the Rio+20 conference, 'greening' economies and growth has been at the center of international politics and economies. Leading policy actors and businesses often frame the emerging green economy as an opportunity

to realize a triple-bottom line – people, planet and profit – in support of the long term vision of sustainable development (World Commission on Environment and Development (WCED) 1987). In other words, while a range of different interpretations of the green economy exist, the dominant understanding tends to emphasize the need for investments to turn capitalism and development in a green direction.

In practice, the green economy unfolds in different ways with a broad range of initiatives being carried out under 'green' umbrellas. However, two key trends stand out: In the global North, the main components in the green economy transition seem to imply technological and market-based solutions to existing industrial sectors as well as fiscal instruments in environmental governance. While this is also important in the global South, green economy implementation in these parts of the world – often initiated from the North – frequently supposes environmental protection along with modernization of, and/ or shifts in access to and control over forestry, freshwater, fisheries, energy and agriculture, sometimes overlapping 'green sectors' (Bailey and Caprotti 2014; Brown *et al.* 2014; United Nations Environment Program (UNEP) 2011a).

These trends, combined with persisting high rates of poverty, we claim, have revitalized *modernization* to become a leading discourse and approach within contemporary international development. Traditional modernization thinking spelled out a geographical divide between the 'progressive' cores of 'modernity' and the 'lagging' peripheries of 'tradition.' The development and modernization process insinuated a stage-wise upgrading of society through progressive control over nature and resources via rigorous application of capital and technology. In the post-Rio+20 context, these ideas seem to reappear in the form of *green modernization.* A wide range of development initiatives and projects across the global South are now framed in this light. This is particularly evident in, but not limited to, the agriculture sector in Africa, where proponents of large-scale investments for food, ('green') fuels or carbon sinking assert that green narratives exist in enduring modernization discourses.

This occurs amidst a turn towards the private sector and business in international development – often through public-private partnerships – since the converging food, finance and fuel crises of the mid 2000s. Green sectors in the global South have become important outlets for international capital in recent years – reinforcing a contemporary cycle of 'material expansion' in this stage of capitalism (Bergius, Benjaminsen and Widgren 2018; Engström and Hajdu 2018; Kröger 2013; Kröger 2015; Patel and Moore 2017). From this perspective, the green economy emerges as a new 'frontier' (Patel and Moore 2017), or a 'spatial fix' in capitalist reorganization (Harvey 1981, 2001, 2014), in which capital and markets are expected to deliver growth and technological advancements to those in need (Brockington 2012).

Scholars have written extensively about the turn towards forms of 'green capitalism' (Tienhaara 2014; Wanner 2015). Our contribution lies mainly in demonstrating how modernization has also taken a green turn and resurfaced in the development discourse in the wake of the green economy. To illustrate this, we use the case of the new Green Revolution in Africa. We argue that what is new is the way in which powerful actors adopt and promote green narratives around what is essentially long-standing modernization ideas to recast the modernization trope as 'green'; namely, green modernization.

The new Green Revolution for Africa is an eloquent example of green modernization. Undergirded by neo-Malthusian ideas, its stated objective is development through poverty reduction and food security, it is permeated by green rhetoric, and it is private sector led and capital/ techno-centred, with a wide array of public-private investment platforms. The new green revolution transpires within the broader green economy framework, and the two, green revolution and green economy, frequently merge under new terms such as Agriculture Green Growth (Southern Agricultural Growth Corridor of Tanzania (SAGCOT) 2013) or Climate Smart Agriculture (the Food and Agriculture Organization of the United Nations (FAO) 2010). As Bill Gates, a key proponent of the new green revolution through the Bill and Melinda Gates Foundation, asserts, "… we need both productivity and sustainability – and there is no reason we can't have both […] the next Green Revolution has to be greener than the first" (Gates 2009).

In other words, 'progress' under the new green revolution – reflecting the dominant green economy discourse (Bergius *et al.* 2018; Buseth 2017) – signifies a trajectory of agrarian change that focuses on productivity growth *and* environmental protection via capital-intensive farming methods and new settlement patterns. Meanwhile, critics question the inclusivity of these green modernization strategies in agriculture, and

express worry about what they see as substantial blind spots when it comes to issues of power and distribution (Clapp, Newell and Brent 2018; Holt-Giménez and Altieri 2012; McKeon 2015; Moseley 2017; Patel 2012). Indeed, these are core concerns of political ecologists (Moseley 2017; Peet, Robbins and Watts 2011; Robbins 2011; Tilzey 2018). As Moseley (2017) argues, a political ecology approach is useful to unmask the power structures and key assumptions underpinning the new green revolution. In this article we seek to do this by situating and historizing the new green revolution for Africa within a wider green modernization development discourse.

This article is primarily based on a review of relevant academic and policy literature. In addition, research undertaken since 2015 at local and national level in Tanzania, as well as at the international level through key stakeholder interviews and conference ethnography, provide an overall contextual background to our discussion.[2]

Following this introduction, the article proceeds with an outline of modernization thinking to illustrate its origins, persistence and contemporary 'green' turn in development discourses. After a brief discussion of this green turn in development policy, we demonstrate in the last part of the article how an emerging green modernization discourse manifests in the new green revolution for Africa. In particular, we focus our discussion on three interlinked components that we see as key to the discourse; technology and 'productivism', the role of capital and 'underutilized' resources, and mobility of land and people. Finally, we provide some concluding reflections.

2. From modernization to green modernization

Over time, the concepts of modernization and development have carried variegated meanings. Contemporary usage dates from the commencement of the post-war 'development project' (McMichael 2012). However, its historical roots go back to a patchwork of ideas rooted in 16th and 17th century European enlightenment philosophy.

During this time, what Patel and Moore (2017: 46) describes as an "intellectual revolution" took place, which set the stage for dualistic ways of understanding the world: seeing *nature* as an entity distinct from *society*. The Cartesian ontology that underwrites this divide distinguished between *res cogitans* (thinking things) and *res extensa* (extended things). The former refers to humans, while the latter describes all extended things; those that are not human and therefore not thinking things. In Descartes' view, *res cogitans* had to become the "lords and masters" (Descartes 1985: 142-143) of *res extensa.* This ontological construction underpins much of the enlightenment philosophy: "science should as it were torture nature's secrets out of her" (Bacon n.d. in Amrine 2010). This dichotomy has been considered foundational in shaping capitalist development – including the Green Revolution (Eddens 2017) – through its organization of the world in a way that mirrors the power and interests of some humans (the 'civilized' belonging to *society*) at the expense of others (the 'savages' belonging to *nature*) (Patel and Moore 2017; Peet and Hartwick 2015).[3]

Cartesian dualism influenced early thinking around modernization and development. Ideas of progress combined environmental determinism with the rationalist aptitude of *some* humans to master 'nature's secrets' through science and technology (Parsons 1973; Peet and Hartwick 2015; Spencer 1898). Parsons (1973) later referred to this as society's 'adaptive upgrading'; a process by which the application of the rationalist mind to nature prompts a gradual differentiation of special industries from agriculture (Goldthorpe 1975). These ideas have ultimately spelled out an assumed geographic binary between 'modern' cores and peripheries of

[2] Because of this several examples used in this article are from Tanzania. However, the trends and processes we discuss are highly relevant across Sub-Saharan Africa (see for example Daño 2007; Dawson, Martin and Sikor, 2016; De Schutter 2015; Eddens 2017; McKeon 2014; Moseley 2017; Moseley, Schnurr and Kerr (ed.) 2017; Patel *et al.* 2015; Westengen *et al.* 2017).

[3] As Patel and Moore (2017: 52) write, "This means Descartes philosophical abstractions were practical instruments of domination" with material force. Similarly, Peet and Hartwick (2015: 31) emphasize, "the Enlightenment philosophers were thinking on behalf of early capitalist white men, and *their* rights and liberties, not the rights of the workers, nor the peasants, and definitely not women, nor black or brown people."

'tradional backwardness'. By progressively controlling nature, the cores of modernity exemplified the 'progress' towards which peripheries locked in the pre-scientific chains of tradition should aim, and was also endowed with competitive advantages over them.

The rule of (some) humans over nature and the resulting 'separation' from it was evidence of progress and a manifestation of modernity. Embedded in a wider cycle of frontier expansion over capitalism's *longue-durée,* the 'core of modernity' saw as its moral imperative to proliferate the fruits of its scientific progress and liberate the inferior humans from their backwardness – first via colonialism. As French colonial politician and historian, Albert Sarraut, wrote in 1923:

> It should not be forgotten that we are centuries ahead of them, long centuries during which – slowly and painfully, through a lengthy effort of research, invention, meditation and intellectual progress aided by the very influence of our temperate climate – a magnificent heritage of sciences, experience and moral superiority has taken shape, which makes us eminently entitled to protect and lead the races lagging behind us. (in Rist 2008: 58)[4]

Then secondly through 'development'.

Modernization theory for development

"… we must embark on a bold new program", President Truman (1949) said towards the end of his inauguration speech,

> …for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas […]. Greater production is the key to prosperity and peace. And the key to greater production is a wider and more vigorous application of modern scientific and technical knowledge.

Truman's speech signaled the launch of the development project (McMichael 2012) and eloquently reflects the global level schism between primitive and prosperous industrial-capitalist areas. The distinction in enlightenment philosophy between nature and society finds its contemporary discursive representations in the backward/advanced, traditional/modern and underdeveloped/developed binaries that permeate 'development.'

Modernization theory sought to describe the key mechanisms that drive the emergence of modern institutions in countries. Development in this context, as today, was defined according to schisms, which, in the words of Bernstein (1971: 147), depicts "modernization as a process in which modern elements accumulate and traditional elements are displaced." Development was assumed to be synonymous with most of what was considered Western – mental models (rationalism), culture and economic and political institutions – and thus modern (Peet and Hartwick 2015). Economist and US government advisor Walt W. Rostow's influential book, *Stages of economic growth – a non-communist manifesto*, provided the blueprint (1960; Figure 1). Rostow's evolutionary theory of development accentuated economic growth both as a means and as an end, with the ultimate *telos* being signified by societies of 'high mass consumption.' The West, and US in particular, epitomized the consumerist economy towards which all other societies should aspire.

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[4] This quote is an English translation from Sarraut's *La Mise en valeur des colonies françaises* (1923: 118-119). The original text, in French, reads:

> Nous avons tout de même sur elles, il ne faut pas l'oublier, des siècles d'avance, de longs siècles au cours desquels, lentement et douloureusement, par l'effort prolongé de la recherche, de l'invention, de la méditation, d'un progrès intellectuel avantagé par l'influence même de notre climat tempéré, s'est constitué le patrimoine magnifique de science, d'expérience, de supériorité morale qui nous confère le titre éniinent à la protection et à la direction des races en retard sur nous.

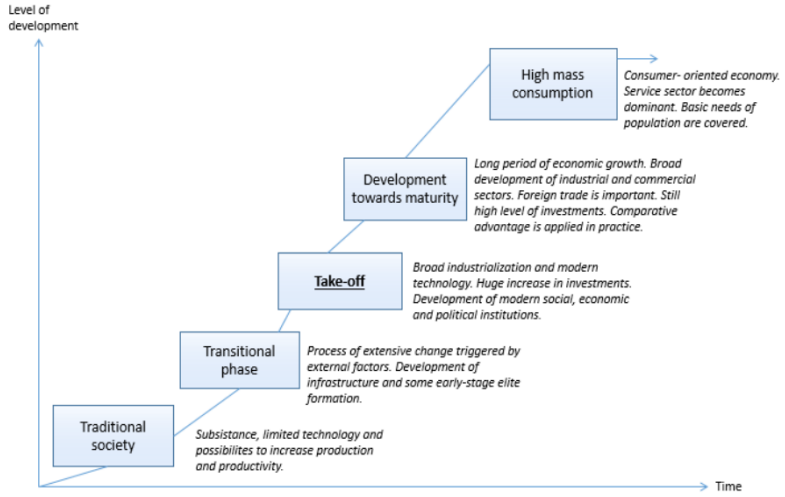

Figure 1: Rostow's 'stages of economic growth' based on Rostow (1960).

Lewis (1954) claimed that the global traditional-modern duality was also a feature salient to economies within the global South. There was the modern (capitalist) sector coexisting alongside a traditional (subsistence) sector yet to be 'captured' by the progressive values of capitalism (Hydén 1980; Lewis 1954). According to Hydén (1980), the traditional sector was governed by a non-entrepeneurial mentality – an "economy of affection" – that impedes the expanded reproduction of capital necessary for industrial development.[5] The key feature of the dual economy, as advanced by Lewis (1954), was the ostensibly low productivity of the traditional sector relative to the modern, denoting overall productivity losses in the economy. This suggested that living standards and the overall performance of the economy would be improved – if 'fructified' by capital to fill development 'financing gaps' (Easterly 1999; Lewis 1954: 147) – via a gradual labor migration towards the modern sector. The mission of development became to capture and modernize uncaptured economies (Hydén 1980).

To Lewis (1954), the uncaptured subsistence sector represented a cheap pool of "unlimited supplies of labor" and embodied an opportunity for capitalists in 'advanced' areas to alleviate falling rates of accumulation through capital exports.[6] Capital inflow would in turn contribute to increased saving rates and generate cycles of re-investable capital and raising productivity and incomes (Galenson and Leibenstein 1955; Lewis 1954). Indeed, the idea of migrating out of the traditional sector finds its equivalent in contemporary calls for investments in the global South and represents – with other "cheap things" (Patel and Moore 2017) – a key component in capitalism's continuously expanding frontiers.

[5] This is also a theme in one of Parsons' (2005 [1951]) five dichotomic 'pattern variables' where he argues that affective neutrality (a feature of modern society), as opposed to affectivity, "is shown when an actor postpones or renounces immediate gratifications, and so is related to capital formation in industrializing socieities which involves decisions to save and invest rather than expend resources in current consumption" (Goldthorpe 1975: 9)

[6] A process similar to what Harvey (1981, 2014) conceptualize as capital's 'spatial-fix' (see below).

In general, modernization theories explain the "accumulation of modern elements" in society (Bernstein 1971) as a relationship and process of *diffusion* across the binary divide (Mouzelis 1980).[7] Lewis argued that 'underdeveloped' countries were characterized by

> …not one island of expanding capitalist employment, surrounded by a vast sea of subsistence workers, but rather a number of such tiny islands…We find a few industries highly capitalized […] side by side with the most primitive techniques [and] a few highly capitalized plantations, surrounded by a sea of peasants. But we find the same contrasts also outside their economic life. There are one or two modern towns […] and villages which might almost belong to another planet. There is the same contrast even between people; between the few highly westernized, trousered, natives, educated in western universities, speaking western languages, and glorying in Beethoven, Mill, Marx or Einstein, and the great mass of their countrymen who live in quite other worlds. Capital and new ideas are not thinly diffused throughout the economy; they are highly concentrated at a number of points, from which they spread outwards (1954: 147-148).

Similarly, Hoselitz (1953: 197) argued that cities modeled after urban centers of the West displayed a "spirit different from that of countryside." Urbanization and what he referred to as 'generative cities', was vital to overcome 'traditionalism' and spur innovation, technological advancement and growth (Hoselitz 1955).

In other words, originating from islands of progress within a sea of tradition, modern elements are projected to diffuse "across the map, cascading down urban hierarchies, and funnelling along transport routes" (Peet and Hartwick 2015: 147).[8] Political intervention by 'underdeveloped' countries adopting freer markets to allow capital inflows could further galvanize the process (Easterly 1999; Eggen and Roland 2013; Lewis 1954).[9]

The metaphor of the dual economy, and modernization theories more generally, systematically conceals how modern and traditional sectors/areas are entangled in symbiotic and asymmetric relationships (Bernstein 1971).

Spatial blind spots: the politics and violence of modernization

Modernization theory exhibits a notable 'spatial' blind spot. Its Eurocentrism deifies the global supremacy of Western mental models and institutions, but systematically turns a blind eye to how the 'rise of the West' has been shaped by global patterns of dispossession, resource transfers and unequal market relations. Rather than simply occurring through internal processes as implied by 'stages of growth' theories (Rostow 1960), 'Western modernization' took place progressively and violently, externalizing agricultural production to colonies.[10] This inherent blind spot – as noted in particular, by dependency and world-system analysts (e.g. Frank 1979; Wallerstein 2004) – typifies a certain form of power exertion in the development project via depolitication: that is, "by constructing a universe of meaning in which the specific deficiencies that are to be rectified by development are portrayed as purely technical problems and the interventions through which this is to be done as purely technical solutions" (Nilsen 2016: 272). Rather than understanding

[7] Diffusion in this context signifies the spread of 'modern elements' (i.e. institutions, technologies and culture/attitudes from regions of high concentration (predominantly global North and/ or urban centers) to regions of low concentration (predominantly the global South and/ or rural areas).

[8] Delacroix and Ragin highlight a particular modernization governmentality through which the state and urban elites disseminate "modern values and attitudes" *via* modern institutions such as the school and mass media (1978: 126).

[9] As Lewis (1954) pointed out, urbanization and urban based industries *along with* rural based commercial/industrial agriculture are both constituents of the modern sector.

[10] A similar feature of 'externalization' can be identified in the new green economy (see below) as companies and rich nations seek to 'green' their growth through various forms of environmental offsets in the global South.

social impoverishment and/or environmental devastation as outcomes of specific power relations, such questions are 'rendered technical', and thus 'simultaneously rendered nonpolitical' (Li 2007: 7).

These underlying spatial and political dimensions of capitalist modernization were central themes in the work of Karl Polanyi. In his critique of liberal capitalism, Polanyi (1944) describes modernization – understood as the move in Europe from preindustrial to industrial societies – as a process of gradual 'disembedding' and commodification. Drawing centrally on Marx's (1887) theorization of capitalism (Prudham 2013), Polanyi argued that this process relied on the decoupling of labor and land (nature) from the socio-ecological systems in which they are embedded.[11] This included steps to mobilize land (e.g. via enclosure laws) alongside technological intensification of agriculture and in the process *forming* the 'surplus labor' force that Lewis (1954) referred to: "farming was business, and …those who were poor must clear out" (Polanyi 1944: 192; Stroshane 1997). Referring to Jeremy Bentham who stated that the condition most favorable to (capitalist) modernization exists "when there are no entails, no unalienable endowments, no common lands, no right redemptions, no tithes", Polanyi stated that 'disembedding' processes were purposeful and strategic.

The enclosure laws and land consolidation measures in England in the 18th and 19th centuries were regarded by Polanyi as a "revolution of the rich against the poor" (1944: 37). To Marx (1887) this marked the original moment of 'primitive accumulation' –expropriation of producers from their means of production (labor formation) and the emergence of a capitalist class – in the history of capitalism.[12] The system gradually expanded via resource appropriation in subtropical regions signifying the application of an industrial/agricultural division of labor on a world scale (Frank 1979; Friedman and McMichael 1989; Marx 1887; Polanyi 1944).[13] This underscores the blind spots intrinsic to mainstream accounts of modernization: rather than being an internal, national and 'natural' process, it rests upon a global socio-ecological relationality with winners and losers. Harvey (2003) later introduced the concept of 'accumulation by dispossession' to describe accumulation as an ongoing process in the reproduction of capitalism.

Polanyi emphasized that complete 'disembeddedness' was a utopian mission. No society could absorb the complete socio-ecological destruction associated with the 'satanic mill' of unregulated capital. Hence, the perpetual pursuit of exchange-value would inevitably incite counter-forces – formal and informal social organizations and movements – pushing to re-embed the market in a system of social and environmental regulations.[14] This 'double-movement', as Polanyi calls it, is in continuous tension and lies at the crux of capitalist development. To Harvey (2014) this dynamic symbolizes capitalism's elasticity and potential for expanded reproduction in the face of social and environmental pressures.

Ecological blind spots and modernization today: from brown to green

Ecological issues have been neglected in most conceptions of development and modernization. Arguably a hangover stemming from the Cartesian worldview, the ecological side-effects of capitalist modernization have been reduced to 'externalities' and thus shifted across the dualistic divide. However, these 'externalities' periodically strike back; as Patel and Moore (2017: 21) write: "…the modern world emerged

[11] This venture, Polanyi (1944: 188) stated, became manifest via "subjection of the surface of the earth of the planet to the needs of an industrial society."

[12] Both Marx and Polanyi recognized 'primitive accumulation' as "the singular genesis for both the commodification of land and the commodification of labor" and thereby its foundational significance for the capitalist organization of society (Prudham 2013: 1579).

[13] Yet, Shivji (2008: 27-28) notes, Marx "saw the march of European capital into these continents, however brutal it was, a means by which the backward forms of production and society would be brought into the age of modern capitalism, and therefore, progressive."

[14] These would include not only the traditional working class resistance that is often linked with Marx (Stroshane 1997), but agrarian, environmental and labour movements more broadly (Prudham 2013). Polanyi (1944) emphasized that the countermovents' chances of resisting and reversing processes of commodification would depend on the classes and organizations' ability to win support outside their own membership and speak for society more generally.

from systematic attempts to fix crises at the frontier, crises that resulted from human and extrahuman life inserting itself" into the calculus of production. Said differently, capitalist modernization evolves through frontiers, expanding into new spheres and spaces in response to externalities and in the process creating new sites and relations of power. To Harvey, frontiers appear as short-term 'fixes' to capital's internal contradictions (1981, 2001, 2014). Externalities that strike back mobilize capital to develop new strategies for accumulation via technological or spatial fixes. This logic, in our view, is the *raison d'être* behind the green economy and is reflected in leading institutions' policy documents on green growth (the Organization for Economic Cooperation and Development (OECD) 2009; UNEP 2011a).[15]

By the 1970s (with 'limits to growth') and 1980s (with 'sustainable development'), the ecological question was on the global agenda. The environmental costs associated with development prompted calls for the incorporation of environmental issues in economic and development planning (Pearce, Markandya and Barbier, 1989). Yet, the ecological question garnered limited attention until the late 2000s (Tienhaara 2013). Intersecting crises in climatic and environmental systems along with food price increases and the global financial downturn, provoked increased comprehension among governments and civil society about the urgency to stake out a 'new path' that aligns the global economy with environmental issues. The emerging green economy framework (and the related concept of green growth) as conceptualized in a variety of policy documents by actors such as UNEP (2011b), World Bank (2012) and OECD (2009, 2011, 2012) – is understood as a new frontier; that is, environmental and climatic change is conceived as an opportunity – rather than crisis – to *create* new zones of interaction between capital and various forms of *nature.* At this frontier, (green) economic activities promise triple-bottom lines – people, planet and profits – in a new 'enlightened capitalism' (White 2013).

In the context of the 'environmental turn' during the 1980s, new approaches emerged within environmental sociology around the concept of eco-modernization (see review by Mol and Spaargaren 2000). This reformist perspective generally views the ecological scarcity induced by modernization as a "design fault" (Spaargaren and Mol 1992: 329) *and* opportunity to innovate and devise new technologies in a 'greener' direction. Gleeson and Low (1998) summarize the three main tenets of eco-modernization as

1) the ecologization of production,
2) market and regulatory reforms that reflects ecological priorities, and
3) the 'greening' of social and corporate values and practices.

Eco-modernization assumes that ecological sustainability is well attuned with growth (by decoupling) and 'modernization' (York and Rosa 2003), and supporters believe firmly in "the self-corrective potential of capitalist modernization" (Gleeson and Low 1998: 165). Going further into capitalist modernization and industrialization is, in other words, not a problem, but a solution that "offers the best option for escaping from the global ecological challenge" (Spaargaren and Mol 1992; York and Rosa 2003: 273). From this view, eco-modernization emerges as the ultimate evolutionary stage of development in accordance with the environmental Kuznetz curve (Stern 2004). The implicit implication is that eco-modernization is something countries 'do' once reaching a certain threshold of affluence.

Hence, the eco-modernization discourse focuses on the global North and how to devise and deploy technological improvements to an already existing industrial sector. Consequently, its application beyond the global North has been negligible (Adams 2008). The Rio+20 green economy conception reflects to a great extent the same discursive trends as in eco-modernization. However, the green economy discourse is more global and explicitly incorporates (green) development in the global South.

Green economy, development and green modernization

[15] According to Brown *et al.* (2014: 246), the green growth agenda represents a 'new component' in the "broader economic liberalization agenda" of these institutions.

According to UNEP (2011a: 16), the main rationale of the green economy is "to enable economic growth and investment, while increasing environmental quality and social inclusiveness." While these ideas cover many areas, the practical focus remains on technological and market-based solutions. Leading development institutions consider the green economy to embody the promise of a "new development paradigm" that paves the way for a "great, green technological transformation" (United Nations Department of Economic and Social Affairs (UNDESA) 2011: v). This new agenda appears to reassert development as modernization with a green profile: it is in this context we identify an emerging green modernization development discourse.

Influenced by the same Cartesian ontology, the green modernization development discourse advances green incarnations of dominant modernization narratives. Its focus is, in particular, on commodification and modernization of 'green' sectors, with resulting shifts in access to, and control over, natural resources in the global South (Bergius *et al.* 2018; Buseth 2017; UNEP 2011a). The conception of green modernization – relative to eco-modernization – attempts to capture these dynamics, prompted in large part by a new institutional context of the green economy that insists on a combination of tha application of technology, continued productivity growth and private capital to set green development trajectories in motion (Bailey and Wilson 2009; OECD 2009, 2011; UNEP 2011a; World Economic Forum (WEF) 2010).

As Green (2015: 632) notes, the "current incarnation" of the growth and modernization agenda valorize, in particular, "private business as development catalyst." After the converging crises of the late 2000s, Green (2015: 630) writes, international development funding was reprioritized towards the private sector in support of "for profit-driven economic growth within a context of globalization." As Bergius *et al.* (2018) argue, this turn of aid and development towards the private sector can be seen as a key vehicle by which capital's spatial-fix to new resource frontiers is enabled in response to an accumulation crisis. In this context, 'green sectors' – for example agriculture, forestry or carbon/biodiversity offsets – have over the last decade become important outlets for (often aid-supported) private capital as part of a general cycle of 'material expansion' in contemporary capitalism (McKeon 2014; Kröger 2013, 2015; World Bank 2013). The growing capacity of the International Finance Corporation (IFC) and Development Finance Institutions (DFIs) since the financial crisis, whose primary aims are to incentivize and support private sector investments, is an important signifier of this private turn (Currey 2014; Kwakkenbos 2012).[16]

From the perspective of green modernization, the 'underdevelopment', 'traditionality' or 'backwardness' of countries in the global South tend to be implicitly expressed as an advantage in the form of 'untapped markets' or 'underutilized' land and natural resources that can be linked with the stock of capital, knowledge and technology accumulated in the global North. This would, in theory, allow developing countries the possibility of "tunneling through" the detour suggested by the environmental Kuznets curve in their quest for development and modernization (Adams 2008: 120). Renowned professor and development economist, Carlos Lopes, aptly sums up this perspective in a recent op-ed where he explains how Africa "can avoid the polluting stage of industrialization" by making an "impala-like leap into a green, industrial economy" (Lopes 2017). However, absent from the green modernization discourse are questions of power, rights and distribution, hence rendering technical (Li 2007) challenges and processes which are inherently political.

These trends are visible, in particular, in discussions around contemporary food and agricultural development. Within the wider green economy context of the last decade a number of interconnected large-scale agricultural initiatives have brought together a diverse set of actors – philanthrocapitalists, donors, governments, corporations and agricultural research centers – that promise poverty and food insecurity reduction alongside environmental protection and to achieve a new green revolution in Africa. Both in their framing and proposed solutions, these initiatives amalgamates under repacked and green versions of *modernization*.

[16] Kwakkenbos (2012) reports that cash flows to European DFIs between 2006 and 2010 increased the funds' investment portfolios by 190 percent. Similarly, the IFC accounted for 35 percent of total commitments by the World Bank group in 2013 as compared to 18 percent and and 13 percent in 2009 and 2000, respectively (Currey 2014).

3. The new green revolution in Africa as green modernization

It is "Africa's turn", a 2006 text from the Rockefeller Foundation narrates, to reap the benefits of the advanced agricultural science associated with the original Green Revolution. However, the foundation continues, more than a "triumph of unfettered science", the original Green Revolution was,

> at its origins, a strategic act of philanthropy, enlisting experts, government, and ultimately local scholars and farmers in a carefully wrought partnership that grew geometrically—and deliberately—over many years. Science, donations, and market forces all played an indispensable part; but all were guided, in the first instance, by a philanthropic plan (Rockefeller Foundation 2006: 4).

That plan, which materialized first in Mexico, and then further into Latin-America and Asia, involved funding research for industrial agriculture and the introduction of high-yielding varieties of staple grains, agro-chemical inputs and irrigation that resulted in significant aggregate yield increases. These transformations have been widely celebrated as the triumph of science over the Malthusian trap (Malthus 1998 [1798]) and culminated in the award of the Nobel Peace Prize in 1970 to the Revolution's most prominent scientist, Norman Borlaug.

However, while yields increased, the wider social and environmental implications of the Green Revolution are much more intricate than the win-world narrative presented by the Rockefeller Foundation (Eddens 2017; Freebairn 1995; Holt-Giménez and Altieri 2012; Patel 2012; Pimentel and Pimentel 1990).[17] Nonetheless, after lauding the philanthropic powers that wheeled the original Green Revolution in motion, the Foundation continues in its 2006 text by declaring that "a similarly decisive initiative from philanthropy […] could well spark a new Green Revolution, this time for Africa" (2006: 4).[18] In partnership with the Bill and Melinda Gates Foundation, the Rockefeller Foundation went on to launch the Alliance for a Green Revolution in Africa (AGRA) – registered as an NGO and a key actor in the institutional framework that makes up the new green revolution (Daño 2007).[19]

Contemporary political economies of food and agriculture differ from those in 1960s and 1970s. Whereas the original Green Revolution arose on the premise of strong state support, the *milieu* in which the new green revolution for Africa expands is characterized by the spread since the 1980s of neoliberal political agendas and market-based approaches that have put smallholders under severe constraints (Dawson *et al.* 2016). The role of the state in the new green revolution has, in other words, shifted towards becoming primarily a facilitator of conducive business environments to allow the private sector and large agribusinesses to take on a leading role through investments (Moseley 2017). Indeed, this asserts the prevailing private turn of aid in which businesses and markets are considered the principal 'development catalysts' in the spaces opened up by neoliberal structural adjustment policies. In this context, the leading view among proponents of a new green revolution is that rural transformation and poverty alleviation will be private sector led and achieved indirectly "through trickle-down effects from an agricultural boom" (Dawson *et al.* 2016: 205). As such, the new green revolution extends a productivist notion that sees hunger predominantly as a supply-side issue, rather than a problem of access to resources (Moseley 2017; Lappé 2012).

The term 'Green Revolution' was first coined by USAID administrator William Gaud in 1968 (Gaud 1968). As Spitz ([1987] 2011: 42) writes: "'Green', of course, was implicitly opposed to 'red' and was

[17] In a review of more than 300 articles, Freebairn (1995) found that in more than 80% of the sample both interfarm and interregional inequality increased. Moreover, removing China from the hunger statistics, the number of hungry people increased by more than 11 percent, thus suggesting that the growing food supplies were unaccompanied by growing food access (Lappé and Collins 2015).

[18] This idea of recreating the 'triumphant act' of philanthropy is a good example of some of the discursive powers at work in the new green revolution and contemporary privatization of development more generally (Green 2015; Moseley 2017).

[19] See Daño (2007) for details on the actors behind the Green Revolution in Africa.

signaling, like a flag, that social reform was not necessary, since technical means in agriculture (evoked by 'green') alone were supposed to solve the problem of hunger." The 'green' flag in the new green revolution has an expanded meaning and also incorporates ecological concerns. Already in 1997, Gordon Conway, then newly elected president of the Rockefeller Foundation, called for a "doubly green revolution" (Conway 1997), essentially making the case for an "ecologically-sound replay" of the first (Patel 2012: 37). Ismail Seregeldin, then head of CGIAR, went even further, calling for a "thrice green revolution: green for productivity, green for environmental sustainability, and green for increased income" (Holt-Giménez 2006: 156). This expanded 'greeness' in the new green revolution answers to the triple bottom line advanced under the green economy and arguably opens up new 'green' spaces for accumulation (for example via climate-smart agriculture (Newell and Taylor 2018) as part of what Friedman (2005) has conceptualized as the corporate-environmental food regime.[20]

Whether portrayed as 'doubly green' or 'thrice green', the new green revolution represents an eloquent example of 'green modernization'. Informed and justified by neo-Malthusian thinking, its stated objective is development through poverty reduction and food security, it has a strong green rhetoric and it is private sector led and capital/techno-centered constituting a wide array of public-private investment platforms. In the light of contemporary environmental and climatic challenges, the new green revolution has an expanded purpose, but the core remains unchanged. Within the context of the emerging green modernization discourse, the new green revolution, we argue, evolves at the interface of three interlinked narratives around technology and productivism, 'surplus nature' and capital deficits, and population trends. To these we now turn to illustrate how 'modernization' is reinforced in international aid and development under the banner of the 'green economy'.

Technology, 'productivism' and 'sustainable intensification': Feeding the world while saving nature

The new green revolution is infused by a steadfast belief in the power of science and technology to 'feed the world' in an era of climate change (Collier 2008; Rockefeller Foundation 2006; WEF 2018).[21] There is a sense of optimistic evolutionism to this belief; target countries are destined to climb the development ladder by adopting technocratic solutions to their 'under-development' – a condition which is considered to contribute to unsustainable practices. Only by getting the 'right policies' in place to support the diffusion of the 'right technologies' to the 'right farmers' can African countries generate momentum for development and break the fetters of the past (see Figure 2 below) (Bushell 2014). This is underpinned by assertion using a particular blend of Malthusian and Ricardian inspired narratives of absolute and relative scarcity in the tripartite relationship between food production, population growth and the environment (Dawson *et al.* 2016; Scoones *et al*. 2014).[22]

In particular, normative interpretations of the '9 billion people by 2050' challenge – the assumed need to double food production – have been widely and strategically adopted as a discursive device by institutions and businesses promoting a new green revolution (Bushell 2014; Rockefeller Foundation 2006; Tomlinson 2013). The imperative to double food production to avoid a potential Malthusian downfall has given renewed impetus to a politics of productivism among governments, development institutions and corporations in the approach to food security (Horlings and Marsden 2011; McKeon 2015; Tilzey 2018). Through the 'productivist' lens, smallholders are found lacking in terms of scientific knowledge and 'yield gaps' which can

[20] This regime, as described by Friedman, is undergirded by a "new round of accumulation…in the agrofood sector, based on selective appropriation of demands by environmental movements" (2005: 229).

[21] As Collier, an influential author and protagonist of large-scale commercial agriculture, argues: "First, contrary to the romantics, the world needs more commercial agriculture, not less...Second, and again contrary to the romantics, the world needs more science…" (2008: 68).

[22] Malthusian notions of absolute scarcity see scarcity to emerge as a result of the inevitable contradiction between growing populations and the (in)ability of "earth to produce subsistence for man", while relative scarcity emphasizes that scarcity is not absolute, but can be overcome through technological innovation and more efficient allocation of resources (Scoones *et al.* 2014).

be resolved via gradual adoption of the right technologies – developed and devised by large-scale agribusiness corporations – in the progress towards becoming 'advanced' farmers motorizing development (see Figure 2). Bill Gates sums up this approach thus:

> The metrics here are pretty simple. About three-quarters of the poor who live on these farms need greater productivity, and if they get that productivity we'll see the benefits in income, we'll see it in health, we'll see it in the percentage of their kids who are going off to school. These are incredibly measurable things. The great thing about agriculture is that once you get a bootstrap – once you get the right seeds and information – a lot of it can be left to the marketplace. (Gates 2013 in McKeon 2015: 72)

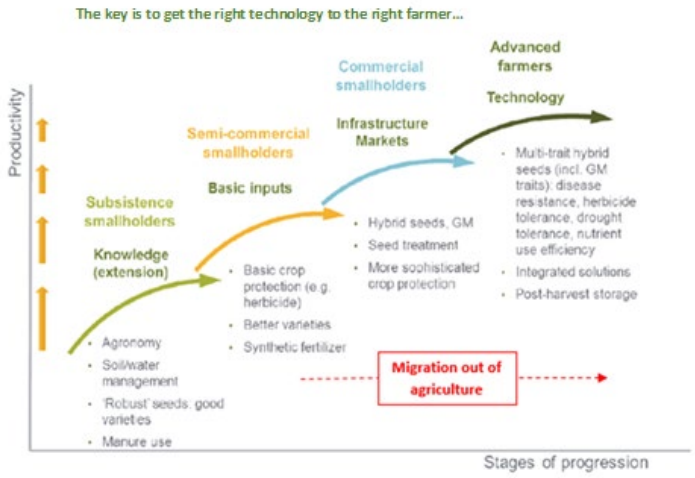

Figure 2: Syngenta's 'Stages of Progression' for farmers. Modified from Bushell (2014) and Zhou (2010).

While 'productivism' has been the dominating approach to global food security in the post-war context of the original Green Revolution (Horlings and Marsden 2011), the new green revolution is strongly influenced by environmental and climatic stresses. Thus, contemporary notions of productivism develop within the wider frame of the green economy via vaguely defined, overlapping and interchangeably used concepts such as 'climate-smart agriculture' and/ or 'sustainable intensification' (McKeon 2015; Newell and Taylor 2018; Perfecto, Vandermeer and Wright 2009; The Royal Society 2009; Tilzey 2018; Tittonell 2014; Westengen *et al.,* 2017; WEF 2010).

Advocates of the new green revolution in Africa particularly emphasize the Malthusian dilemma – that agricultural growth to date has come at the expense of forested land – and that more intensive (usually branded 'climate-smart') farming practices can address productivity (food security), climate and biodiversity challenges (Dawson *et al.* 2016; Taylor 2018; Yara 2015). In short, according to dominant framings, this

entails producing more food from less land and not necessarily less inputs (Westengen *et al.* 2017).[23] Hence, 'smart' and 'intensified' farming should make use of all available modern technology – including chemical fertilizers and latest advancements in genetic modification – to control and 'outsmart' nature (Borras Jr and Franco 2018; ETC Group 2015; McKeon 2015; Tittonell 2014). The fertilizer industry in particular has been at the forefront of the multiple and interlinked agricultural initiatives currently being rolled out under the new green revolution as climate-smart. Spearheaded by the Norwegian, partly government owned, fertilizer giant Yara,[24] the industry upholds fertilizers as the 'smart' link between intensification and sustainability. Consequently, the industry is "pleased with the new and aptly coined term 'sustainable intensification'" (International Fertilizer Association (IFA) 2012: 5) and "fully supports and implements the concept" (Yara n.d.-c). This agro-industrial view of intensification stands in contrast to the classic Boserupian model – also referred to as autonomous intensification – which predicates agricultural intensification occurring via population growth and subsequently more labor intensive, rather than capital intensive, production techniques (Boserup 1965; Tiffen, Mortimore and Gichuki 1994).

To Yara (2015: 4), intensified and "modernized, high-yielding farming" is smart in the sense that it is the *only* way to enhance productivity to feed 9 billion and simultaneously prevent "an area the size of most of Western Europe […] [to] be converted to farmland – releasing massive amounts of greenhouse gases" (2015: 12) and leading to "loss of biodiversity and ecosystem services" (2015: 4).[25] Indeed, these rhetorics – the so called Borlaug hypothesis (Angelsen and Kaimowitz 2001a) – epitomize the mainstream discourse around climate-smart and intensified agriculture and similar initiatives under the new green revolution.

The narrative around 'sustainable intensification' – referred to as an oxymoron by Marsden (2010) – has been strongly challenged and critiqued by both environmental organizations and academics (e.g. Collins and Kirtana 2012; Kremen 2015; Perfecto and Vandermeer 2010; Struik *et al.* 2014; Tittonell 2014). Three key interlinked facets of this debate are important to our purpose. **First**, by rendering questions around sustainable agriculture and global food security as predominantly technical, it disguises underlying political economic relations of power – who wins and loses and how (Bernstein 2010) – associated with input market and technology upscaling (Clapp *et al.* 2018). Yet, occasional references to 'land mobility' (Gates Foundation 2008 in Patel 2012) and 'migration out of agriculture' (Zhou 2010) implicitly indicate a future trajectory of dispossession of those unable to transition to the higher stages of the modernization ladder (see below). Inherent to this political economy of sustainable intensification/climate smart agriculture, is the tendency to contrast extensive 'low input-low productivity' agriculture in the global South ('underdeveloped') with intensive 'high input-high productivity' in the global North ('developed'), while disregarding how production and consumption patterns in the latter lay claim on increasing areas of land in the former.

Second, the "article of faith" in development and environmental circles that automatically link agricultural intensification with land sparing, is not given (Angelsen and Kaimowitz 2001b: 89). Although resulting from a complex set of factors, there is a risk that intensification via capital-intensive technological change promotes deforestation as more well-off farmers are incentivized to expand production, while

[23] Given that chemical input use in Africa remains at very low level, Tittonell (2014) points out, there is no clear connection between goals to increase the use of fertilizers under the green revolution and aims of producing more with less.

[24] According to Yara (n.d.-b), the company initiated the *African Green Revolution Conference* (AGRC) – the predecessor of the *African Green Revolution Forum* (AGRF) - in 2006. Yara (n.d.-a) states that "several partnerships have been initiated after the conferences", of which "Yara's projects include two agricultural growth corridors in Tanzania and Mozambique" described as 'green corridors' to exemplify how green growth principles can be introduced" in agriculture.

[25] Elsewhere, Yara contrasts its own approach, referred to as 'productive farming', with organic farming which they claim would lead to lower productivity and therefore increased deforestation. However, recent research on diversified and agroecological farming systems indicate negligible differences in productivity per land unit (Ponisio *et al*. 2015).

accumulation by dispossession pushes less resourced farmers to expand farmland into forests (Angelsen and Kaimowitz 2001a; Angelsen and Kaimowitz 2001b; Perfecto *et al.* 2009).[26]

Lastly, the intensification agenda reinforce the ontological dualism inherent to modernization discourses in the way the world is sub-divided into distinct landscapes for 'nature' (biodiversity and carbon sequestration) *and* landscapes for production to 'feed the world.' This dualism reveals underlying power structures in the workings of a contemporary corporate-environmental food regime that suggests a trade-off between technology-driven productivity, biodiversity and climate change mitigation. Indeed, this dualist worldview enables strategic partnerships around shared concerns between agribusiness corporations and mainstream conservation oriented NGOs (Holt-Giménez and Shattuck 2011; Newell and Taylor 2018), [27] while disregarding alternative conceptions that see agroecological matrixes as key repositories for both production and biodiversity (Perfecto and Vandermeer 2010).

Under the green economy an opportune moment has arised for agribusiness corporations to rebrand their product lines under epithets like 'climate-smart' and 'feed the world' to capitalize on new market opportunities. As Clapp *et al.* (2018: 5) have recently pointed out, "many of these strategies, packaged as solutions to climate change, are being skillfully used to open up new commodity frontiers", while obscuring how they are girded by history, politics and power. What is new at the current conjuncture is not the link between technology and intensified agricultural production, but rather the adoption and promotion of green narratives around already existing technologies to recast the modernization trope as 'green.' Similar processes have been discussed as 'greenwashing' or 'grabbing green' (Buseth, 2017; Corson *et al.* 2013). In the language of Lewis' (1954) dual economy, the key feature here is the ostensible low productivity and environmentally unsustainable nature of 'traditional' farming relative to 'modern' or 'advanced' practices, which signify overall social, economic and ecological losses. Eliminating these losses and thus achieving progress – "feed the world and protect the planet" (Yara n.d.-a) – is possible if foreign public and private capital is mobilized to 'fructify' Africa's 'underutilized' resources (UNEP 2011a).

'Surplus nature' and capital deficits: the role of capital in the green modernization discourse

"Sub-Saharan African agriculture is underdeveloped. Its transformation from subsistence farming to modern, commercial agribusiness represents a massive long-term opportunity, especially considering Africa's wealth of natural resources" (AgDevCo 2017: 4).[28] This quote summarizes a common perspective on the current state of rural Africa: It holds an abundance of underused nature (including labor), which, if coupled with accumulated global capital and technology, represents an opportunity for both business and sustainable development.

The World Bank epitomizes this view aptly in its *Growing Africa – unlocking the potential of agribusiness*' report (2013). Pointing towards a peak in global yields of major staple crops due to "the exhaustion of Green Revolution technology, a slowdown in research and development (R&D) spending in many countries, and increasing land degradation and water scarcity", combined with future uncertainties around climate change, it predicts that "prices will be higher and more volatile relative to the past decade" (World Bank 2013: 15). In this context the World Bank (2013: 17) sees great potential for agribusiness expansion in Africa relative to Asia, which "faces an acute scarcity of land and water." Africa, however, "has an abundance of both" (2013: 17) for the production of food and agricultural exports – including sugar, palm

[26] This is not to dispute that agricultural growth in, for example, Africa in recent decades has been accompanied by extending cultivated areas (Evenson and Gollin 2003), but rather to problematize the air of sophistry around the simplified cause and effect relationship in agricultural intensification.

[27] This feeds into what Logan and Wekerle (2008) coined the 'neoliberalization of environmental governance' in which the role of NGOs have transformed from being watchdogs to 'partners' with key industry actors.

[28] AgDevCo co-led the development of an 'investment blueprint' for Tanzania's main green revolution initiative, SAGCOT, in 2011, and played an even bigger role in the development of the Beira Agricultural Growth Corridor (BAGC) in Mozambique from 2010 onwards. The company was established in 2009 with significant support, in particular, from the Norwegian government. Other key supporters include the Rockefeller Foundation and the UK's DfID.

oil and biofuels. Export commodity production, it notes, "gives a clear advantage to African producers with plentiful low-cost labor and/or land" (2013: 15-16). Hence, from the perspective of global capital, the "time has come for African agriculture. Southeast Asia has become crowded, competitive, and expensive for doing agribusiness, chipping away at profit margins. We see higher profit potential in Africa for exports – and for domestic sales" (2013: 16).

The many interlinked initiatives currently proliferating across Africa under the umbrella of the new green revolution ought to be understood, at least partially, from this perspective: as a spatial-fix for global agribusiness capital to falling profit margins (Harvey 2014). Indeed, as noted by the World Bank (2013), Africa has become the 'final frontier' for agribusiness corporations, which see great potential in the ostensible cheap nature/cheap labor nexus of the continent (Patel and Moore 2017).

The wide array of public-private investment platforms under the new green revolution are essentially framed through the vision of these agribusiness actors wishing to *create* markets and demand for their products. As Svein Tore Holsether, the CEO of Yara, states: "Yara realized early on in our operations in Africa that the international private sector cannot simply serve the agribusiness market in Africa; it must be part of creating that market" (WEF 2016: 12). That is why Yara took on a leading role in, for example, establishing the African Agricultural Growth Corridor initiatives to exemplify, in their own words, "how green growth principles can be introduced" in agriculture (Bergius 2014; Yara n.d.-a). In this context of expanding agribusiness frontiers, private capital is held forward by donors, governments and corporations as the main limiting factor to green development and modernization. There seems hardly to be any limit to the number of billions of dollars that have been pledged in investments under the various new green revolution initiatives for the development, deployment and distribution of (green) agricultural technologies. To ensure the smooth movement of this capital and linking it up with the ostensible dormant potential contained in Africa's lands, governments' roles are to create business-enabling environments.

'Enabling' environments are thought to create the conditions necessary to allow space for the private sector to drive development efforts. The World Bank promotes and incentivizes this through its annual *Enabling the business of agriculture* (EBA) reports, which ranks countries according to their attractiveness for agribusiness investments. The higher the EBA score a country receives, the more competitive and enabling it is for capital investments to address problems of hunger and poverty. Framed in the language of 'modernization', global South countries at the lower end are found to be "lagging behind" their better performing counterparts – mostly countries from the global North – having "less than half of the regulatory good practices promoted by EBA" (World Bank 2017: 7). As a consequence, donor support under G8's *New Alliance for Food Security and Nutrition*, a key initiative of the new green revolution, is tied to EBA linked conditionalities. Hence, countries that participates in the New Alliance scheme committed in their framework agreements to undertake a number of policy changes to liberalize regulations concerning land, seeds and other agro-inputs to incentivize agribusiness investments.

Integral to the private and 'green' turn in agricultural development financing is the proposed introduction of agricultural carbon markets via 'climate-smart' production practices. Smallholder farmers tend to be presented within a narrative that makes them beneficiaries of such markets (Newell and Taylor 2018). As Syngenta, for example, states: "The carbon market offers potential opportunities for farmers to benefit from payments for ecosystems services and agricultural and land use practices that sequester or use carbon efficiently" (Zhou 2010: 2). While denounced by many civil society organizations – including La Via Campesina – for lacking precision and 'greenwashing' industrial agriculture (The Ecologist 2015), Newell and Taylor argue that "dominant agribusiness actors […] use CSA [climate smart agriculture] to advance their preferred technologies and strategies as well as seek to re-package them in ways which access new financial and revenue streams associated with carbon markets and the 'bio' or 'green economy'" (2018: 12).

The relocation of agribusiness capital to the 'final frontier' (World Bank 2013) under the new green revolution is arguably part and parcel of a contemporary epoch of material expansion in capitalism. In the context of the green economy this happens by ascription to an emerging green modernization discourse that seeks to 'climate smartify' what are essentially long-standing approaches to food and agricultural production by 'grabbing green' (Buseth 2017). A central aspect of this discourse is the construction and promotion of a

narrative of imbalance between 'surplus nature' and capital/technology that needs to be rectified to ensure a 'green' development trajectory. However, this narrative often appears alongside contradicting neo-Malthusian perspectives on population growth and environmental degradation (Benjaminsen and Svarstad 2017).

Mobility of land, people and 'stages of progression'

Population trends are inextricably linked to the emerging green modernization discourse. Such trends are important both as *drivers* (population growth) behind green transitions and as integrated *solutions* to social and environmental challenges (agricultural outmigration and urbanization). The gradual disappearance of peasantries in the West – a trajectory of urban-based modernization to which a recent *Ecomodernist manifesto* explicitly subscribes (Asafu-Adjaye *et al.* 2015) – allowed modernization theorists to define the absence of peasants as a key signifier for development. As McMichael (2012: 8) notes, "a logical extrapolation (if not historical analysis) would therefore be to define peasant cultures elsewhere as remnants of 'Traditional Society'" and thus "destined to disappear, whether because of urban gravitational pull, green revolution technologies, eviction by land grabs, or unequal competition from First World agribusiness."

In other words, as modernization cascades, an implicit long-term notion involves the substitution of (some) rural peoples living from the land with capital and technology to facilitate outmigration from agriculture. In the neoliberal vocabulary of the new green revolution – where land is to be treated as a fungible economic asset – this process tends to be depoliticized as 'land mobility.' A 2008 unpublished summary of the Gates Foundation's agricultural development strategy elucidates this vision of rural transformation: it necessitates "market-oriented farmers operating profitable farms that generate enough income to sustain their rise out of poverty. Over time, this will require some degree of land mobility and a lower percentage of total employment involved in direct agricultural production" (Gates Foundation 2008 in AgraWatch 2011). Of course, the mobile component here is not the land itself, but rather labor: the people working it.

Similar visions of development are shared by many African elites and policymakers. The Tanzanian Minister of Agriculture, for example, was recently quoted stating that "A farmer who sees that they wouldn't follow modern farming procedures shown by extension officers should quit and pave way for other farmers who are ready to do so" (The Guardian 2017).

The theory of change invoked by this conception of 'land mobility' is akin to Syngenta's vision of 'good growth' (see Figure 2 above). Bearing striking resemblances to Rostow's stages of growth theory, Syngenta's 'good growth plan' – alternatively "stages of agricultural intensification" (Zhou 2010: 4) – explicitly posits agrarian change as traversing through a series of stages where the final step insinuates highly capital and technology-intensive agriculture dominated by an emerging base of what Syngenta conceptualize as 'advanced farmers.'

The modern, business-oriented and advanced farmer represents the antithesis of the unsustainable and 'backward' condition of African agriculture at present (Scoones *et al.* 2014). As the Syngenta model and similar calls for land mobility predict, this 'good growth' towards modernization is not for everyone and those farmers unable to take the next step – from agri*culture* to agri*business* (AGRA 2017b) – are projected to 'migrate out of agriculture', although it is not clear to what and where (Li 2011). To Akinwumi Adesina, former associate director of food security at the Rockefeller Foundation, winner of the 2017 World Food Prize and current president of the African Development Bank, this could in theory realize his prediction, that "Africa's agricultural take-off will make billionaires from poor men's fields"(AGRA 2017a).[29] Perhaps these prospective billionaires are the supreme signifiers of the white-collar agribusiness managers Swedish company Agro EcoEnergy imagined would emerge as a result of their large-scale investment in Tanzania (Figure 3). Nevertheless, the notion of 'land mobility' – allowing land to 'move' to supposedly more efficient, sustainable and business-oriented producers, while reducing the overall number of people involved in

[29] While the prediction about Africa's future billionaires stems from Adesina, the exact wording of this quote is from AGRA's head of policy and advocacy (AGRA 2017a).

agriculture – "lies at the heart of the modernization narrative" (Bergius *et al.* 2018: 4) and is supported by influential actors, including the World Bank, as a decisive factor to "move upwards" in the "value-chain of countries" (Akram-Lodhi 2008; McMichael 2009; World Bank 2007).[30]

However, following Polanyi's (1944) reminder that a 'disembedded economy' was not the result of some natural force, land mobility does require land *to be mobilized*. Several land use planning and property formalization schemes with this intention are currently underway in Africa as part of the wider institutional infrastructure of the new green revolution.[31] Land use planning *enables* land mobility and consolidation (Walwa 2017) and is a precondition for commercial estates – Lewis's islands of progress (1954) – to be established, "since only once tenure rights are fully clarified shall the investor be assured that its title is secure" (De Schutter 2015: 24; Greco 2016).[32] Reporting from an agricultural frontier area in Tanzania, Greco (2016) argues that the region's status as a high-potential zone for agribusiness investments has incited donors to fund a land planning and formalization program, with a core aim is to publish a database with land available for investments. Further, she writes, "the speedy implementation of [land-use plans] in Kilombero District seems to indicate that they are more likely to be sponsored when strong corporate interests are at play", such as the G8's New Alliance for Food Security and Nutrition, "which require rapid and effective formalization of land property" (Greco 2016: 35).[33]

Figure 3: The future farmers of Africa? Swedish company Agro EcoEnergy's illustration of how large-scale investments will catalyze economic growth and turn small-scale farmers into agribusiness managers (Agro Eco Energy n.d.).

The condition obstinately regarded as most favorable to agricultural modernization, as Jeremy Bentham once proposed (in Polanyi 1944), exists when land is alienable and 'mobile.' Although leading

[30] As stated by former Norwegian Minister of Foreign Affairs, Børge Brende, during a discussion on the Sustainable Development Goals at the Norwegian University of Life Sciences in August, 2017.

[31] As part of its Cooperation Framework to support the New Alliance for Food Security and Nutrition the Tanzanian government, for example, committed to demarcating all village land and completing Village Land Use Plans (VLUP) in 40% of the villages within its Southern Agricultural Growth Corridor area (New Alliance 2012).

[32] This is a double-mcedged sword, as secure land tenure plays a vital role for smallholder farmers. What matters is to what extent smallholder's interests relative to agribusiness capital are reflected in these processes.

[33] See also Bergius (2016).

proponents of agricultural modernization appear to put more emphasis on the importance of smallholders than they have over the last few decades, mainstream policy discourse remains infused by the idea that the long term vision of a 'thrice green revolution' are better addressed by a gradual move towards capital and technological intensification and larger scales in production. This view is manifested, in particular, by the substantial increase in farmland investments spurred by the converging crises of the mid 2000s (Borras Jr. *et al.* 2011; Hall, Scoones and Tsikata 2017). The displacement and injustice occurring in the wake of many of these investments, whether for or food, fuel or carbon-sinking, represent the politicized side of the 'land mobility' coin, and, as Harvey (2014: 55) posits, a global "politics of accumulation by dispossession run riot in ways that even Polanyi could not have imagined."

Flagged by a depoliticized green language of climate smartness, sustainable intensification and land mobility, public and corporate interests subscribe to a resilient and linear historical narrative of modernization that risks reinforcing a pattern of rural depopulation (Borras and Franco 2018; Davis 2006; Engström and Hajdu 2018; Li 2010).[34] Registered in the long-standing dualist ontology undergirding this narrative, the emerging green modernization discourse would perceive such trends as progressive change. Indeed, modernization is simply "not possible in a subsistence agrarian economy" (Asafu-Adjaye *et al.* 2015: 13). The ultimate stage of agricultural intensification is presumed to allow for less people being directly involved in agricultural production, and thereby unleashing the 'unlimited supplies of labor' from the countryside (Lewis 1954). This is a path to green modernization that will ultimately, it is assumed, reduce pressures on 'nature.'

4. Concluding remarks

Upon receiving the World Food Prize in 2017, Akinwumi Adesina proclaimed his pride of being a "disciple of Norman Borlaug to preach the new *"agriculture gospel"* across Africa." In Adesina's words, the

> …new agriculture gospel is simple: to lift millions of people out of poverty, agriculture must become a business. For in agriculture as a business lies the hope of economic prosperity for Africa […]. Every time I pass through rural parts of African countries – where the agriculture engine is or should be unlocked – I see nothing but wasting potential. They sit on 65% of the uncultivated arable land left to feed the world, but can barely feed themselves. They hear of rich farmers in Europe and America and wonder why they themselves languish in poverty. Certainly life must be better than this. Why have we forgotten them? (Adesina 2017)

Adesina's analysis is indicative of the modernization discourse that epitomizes the new green revolution for Africa. Against a background of a present state of misery relative to the richness of industrial agriculturalists in the global North, a new green revolution premised on a combination of agribusiness capital and technology promises to unleash the dormant development potential currently 'wasted' in Africa's lands. While this trope of modernization is long-standing, we have argued in this article that the new green revolution and its emergence within a contemporary green economy feeds into an emerging *green modernization* development discourse.

'Greening' development and growth under presumptions of realizing a triple bottom line have been at the core of international politics since the Rio+20 conference in 2012. While in the global North this mainly entails ecologization of an already existing industrial sector (eco-modernization), the trend in the global South is making investments in and modernization of 'green sectors' to make the development path 'green' from the onset. We have argued in the case of the latter that the post-Rio+20 green economy context has revitalized green versions of classic modernization thinking in development. This trend is visible, in particular, in the agricultural sector where proponents of a new green revolution in Africa increasingly avow green narratives

[34] As McMichael (2009: 239) writes, "the Rockefeller/Alliance for a Green Revolution in Africa (AGRA) embraces this model, combining with other multilateral and corporate funds generated at the Rome summit to restructure African farming…"

around a deeply rooted techno-scientific paradigm of development, modernization and progress. More laden political questions of power, rights and distribution, remain muted (Chandra, McNamara and Dargusch 2017).

We have pointed towards three interlinked components of the new green revolution for Africa that exemplify this emerging green modernization discourse. **First**, under new green brands such as 'climate smart agriculture' and 'sustainable intensification' it extends an unshaken belief in technological fixes to alleviate poverty, feed the world and protect the environment. **Second**, it furthers a legitimizing narrative of imbalance between 'surplus nature' and capital that needs to be remedied to ensure 'green' growth and development. And **lastly**, it rests upon an idea of 'land mobility', which in the long run envisions a trajectory of agrarian change that allows for less people being involved in agricultural production.

To conclude, our discussion of the *new green revolution* as an example of *green modernization* illustrates the ways in which discursive powers expressed through the *green economy* and the *green growth paradigm* influence policies implemented in practice. These capital-led initiatives garner little consensus among smallholders and their organizations. Across the world – including in Sub-Saharan Africa – alternative (green) visions of agricultural development exists among smallholders and organizations. La Via Campesina and other alternatives propose radically different agrarian futures seeking to (re)connect humans with nature via agroecology and food sovereignty.

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PAPER 3

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Narrating green economies in the Global South

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Abstract

This paper discusses how the green economy in the Global South is being narrated and implemented under a modernization of natural resource management discourse. Green economy strategies often evolve around market-based and technological solutions to environmental challenges, particularly in the Global North. By contrast, in developing countries with rich resource bases, transitions to a green economy often imply varied forms of modernization of the ways in which natural resource sectors are managed, utilized and controlled. This, I argue, is a result of the process in which the green economy agenda transfers from global discourse to policy implementation in practice. This paper discusses how prevailing narratives feed into and inform green economy policies when implemented in the Global South. I argue that a persisting neo-Malthusian narrative of resource scarcity, degradation and overpopulation co-exists with a resource abundance narrative, holding that pristine natural resources are vast, but under threat, and that capital, "know-how" and technology can protect and develop these resources while at the same time accumulate economic growth, under the aims of the green economy. As a result, the green economy in the Global South is narrated and implemented under a discourse of modernization of natural resource management, which often implies external interventions in the use of natural resources. While much literature discusses various green economy schemes in the Global South and their outcomes, this paper delves into the discursive drivers behind these practices, and explores how narratives and discourses feed into and shape green economy policies on its way to implementation.

Keywords: green economy, narratives, discourses, discourse institutionalization, modernization discourse, natural resources

1. Introduction

In the aftermath of the triple crisis of food, finance and energy that occurred in the last decade, the planetary crisis in particular received increased attention in political, popular and academic circles. For many, these interlinked crises represented a "unique moment in history, in which major environmental and economic challenges could be tackled simultaneously" (Tienhaara, 2014: 1). Global policymakers, such as the United Nations Environment Program (UNEP), the Organization for Economic Cooperation and Development (OECD) and the World Bank, began working on strategies to find solutions to or redirect the crises of the economy, the environment and persisting global poverty. The results of their efforts were acknowledged at the United Nations Conference on Sustainable Development, Rio+20, in 2012, one of the main outcomes of which was the conceptualization of the green economy (UNEP, 2011), also coined green growth (OECD, 2009).

A green economy is an economy "that results in improved human well-being and social equity, while significantly reducing environmental and ecological scarcities" (UNEP, 2011: 16). The ways in which the green economy is implemented in practice, are many and varied, but there is an overwhelming emphasis on market-based and technological solutions to environmental challenges. In industrialized countries, the green economy usually means investments, technology and innovation in renewable energies, as well as making fossil fuels more energy-efficient and cost-efficient, much along the lines of ecological modernization (Mol and Spaargaren, 2000).

In the Global South, however, green economy implementations usually take place in natural resource sectors (Bailey and Caprotti, 2014; Brown et al., 2014; [*references removed for peer review purposes*]). One reason for this is that the combined targets of the green economy—poverty reduction, climate measures and economic growth—have spurred initiatives that aim to merge these agendas in the same package (Arndt and Tarp, 2017; Hicks et al., 2008). Furthermore, there is an increasing trend that investments in natural resource sectors are being framed as green growth under the green economy (World Bank, 2013). This is primarily based on the realization following the triple F crisis that innovation, investments and capital accumulation needed to take place in new sectors after the financial crackdowns in the years 2007–2009. Investors quickly turned their attention towards land and other natural resources, while policymakers directed a large amount of attention towards technology and capital inputs, as well as management of natural resource sectors.

In this way, the converging crisis found "triple win" solutions in the green economy. In line with Harvey (2001), Patel and Moore (2017) argue that the use of natural resource sectors is based on capitalism's constant drive towards expansion or a "spatial fix." [*Reference removed for peer review purposes*] state that "green sectors in the Global South have become important outlets for international capital in recent years – reinforcing a contemporary cycle of 'material expansion' in this stage of capitalism." Kröger (2013) found similar patterns in his study of "forestry capitalism" in Brazil, and Benjaminsen and Bryceson (2012) discuss how capital accumulation, or "accumulation by dispossession," has taken place through the acquisition of land and coastal reserves in Tanzania.

A turn towards involving private sector actors and the "trade not aid" trend has spurred an increase in public–private partnerships and philanthrocapitalism in many sectors, including climate measures and environmental schemes in the Global South (Adelman, 2009; Arndt and Tarp, 2017). Part of this turn includes a reinvigoration of "modernization" as both a means and an end in implementing the green economy's triple agenda [*references removed for peer review purposes*]. Bergius et al. (2018: 825) hold that the green economy is increasingly manifested in Africa through the use of green agendas in order to strengthen the idea that development equals modernization through "capital-intensive land investments."

I argue that most importantly the modernization discourse is a result of a process in which market-based and technological agendas under the green economy meet a persisting neo-Malthusian narrative of resource degradation, scarcity and overpopulation and a narrative of resource abundance in the context of the Global South. Several powerful actors, such as the World Bank (2013, 2019), base their policy agendas on the idea that resource bases in developing countries are rich and pristine, but threatened by degradation (Scoones et al., 2018).[1] Key policy documents hold that capital and technology inflows will protect these natural resources and at the same time accumulate green growth and development under the threefold goal of the green economy (OECD, 2009; UNEP, 2011; World Bank, 2013, 2019). Scoones et al. (2018) argue that "scarcity" narratives became dominant motivations and justifications in the rush for Africa's farmland after the food price spikes in the years 2007–2009. In this paper, I argue that such narratives also have been a driving force in policies and practices of various green economies in the Global South,

[1] See also Bassett and Zueli (2000) on the related 'Sahelian crisis narrative'.

particularly in Africa, since Rio+20. Policies informed by these narratives infer in the management of natural resources and people's use of and access to them.

A wide range of initiatives within the management, utilization or protection of natural resources is being rolled out under green economy banners across the Global South, and a substantial amount of published research discusses the logics and consequences of various green initiatives (Brown et al., 2014; Büscher and Fletcher, 2015; Cavanagh and Benjaminsen, 2017; Death, 2015; Ehresman and Okereke, 2015). Many of these studies, often conducted by political ecologists, criticize green schemes and their implications as consequences of the green economy; examples include REDD+ (Asiyanbi, 2016; Lund et al., 2017; Svarstad and Benjaminsen, 2017), carbon forests (Leach and Scoones, 2015; Lyons and Westoby, 2014), climate-smart agriculture and the new green revolution for Africa (Bergius, et al., 2018; [*reference removed for peer review purposes*]; Newell and Taylor, 2018; Westengen et al., 2017), biofuel production (Boamah, 2014; Matondi et al., 2011), nature conservation (Büscher and Fletcher, 2015, Sullivan, 2013), and ecotourism (Fletcher and Neves, 2012; Gardner, 2012; Rai et al., 2019).

Looking at initiatives in natural resource sectors as outcomes of the green economy is important for understanding how the green economy manifests in the Global South, but there is a gap in research on the political and discursive drivers behind green economy implementations (Scoones et al., 2015). Asiyanbi (2015) argues that a growing body of work on "neoliberal natures" has failed to make enough effort to assess how discourses of the green shift are being translated into realities on the ground. It is therefore important to analyze the green economy not only from the outside (actual implementations), but also from within (discursive drivers). In order to address this gap, I examine and discuss how narratives and discourses inform, shape and justify green economy policies in the Global South. This paper is therefore also a contribution towards understanding how discourses institutionalize and transform in their process towards policy implementation (Hajer, 1995).

Current debates on green economy implementations are essentially *apolitical* (Newell, 2015), meaning that they pay little or no attention to power structures. Furthermore, Newell (2015: 69) argues that policy and scholarly debates have focused more on the "governance of transitions than the politics of transformations." Thus, political ecology offers a useful framework for the study of green economy implementations, particularly from a discursive angle. The interaction between

natural resources, power and politics is of main concern for political ecologists, who seek to unmask power structures and key assumptions underpinning natural resource management (Moseley, 2017; Peet et al., 2011; Robbins, 2012). Stott and Sullivan (2000) emphasize the importance of tracing environmental narratives by identifying power relations, and a key approach within political ecology is to link driving discourses to current environmental policies (Peet and Watts, 1996). Political ecology is therefore useful for the analysis of power and multilevel politics in environmental governance (Adger et al., 2001), such as the green economy, and therefore undergirds the discussion in this paper.

The findings presented in this paper are primarily based on an extensive review of policy documents,[2] as well as data collection undertaken between 2015 and 2017. I applied qualitative methods, including in-depth interviews with key actors in global and multinational organizations, and institutions working with various forms of green growth, particularly in Tanzania.[3] My analysis is furthermore built on event ethnography (Campbell et al., 2014) carried out at three big international policy conferences on the green economy, and one conference related to the new green revolution in Africa.[4] I analyzed the data qualitatively, particularly under a discourse and narrative analysis framework through methods of coding and identification of regularities across transcripts, recordings and documents building particularly on Foucault's "archaeology of knowledge" (Foucault, 1972), Roe's concept of policy narrative analysis (Roe, 1994), and Dryzek's framework for analyzing environmental discourses (Dryzek, 2013).

[2] The analyzed documents are primarily key policy reports and strategies by UNEP, the OECD, the World Bank, the Partnership for Action on Green Economy (PAGE), and the World Economic Forum (WEF). I also reviewed project strategies and documents from REDD+ projects, Payment for Ecosystem Services (PES) schemes, and agricultural corridors in Africa, in addition to White Papers and investment strategy papers by selected investors, primarily in African countries. I chose to focus on UNEP, the OECD and the World Bank, since they are the three most influential actors in formulating and implementing green economy policies in the Global South.

[3] Data collection was primarily conducted in Tanzania, including interviews at government level and with investors, institutions and other actors operating in Tanzania. However, the trends described in this paper are similar across many African countries (see e.g. [*reference removed for peer review purposes*]; Daño, 2007; Dawson, Martin and Sikor, 2016; De Schutter, 2015; McKeon, 2014; Moseley, 2017 and Patel et al., 2015), and the data material this paper builds on refers also to other countries and Africa in general.

[4] The events were: The 1st Global Forum on Green Economy Learning, OECD, Paris, December 2015; the Fourth Green Growth Knowledge Platform Annual Conference (2016), South Korea, September 2016; The Global Green Growth Summit, South Korea, September 2016, and The Annual Forum of the Southern Agricultural Growth Corridor of Tanzania (SAGCOT), Dar es Salaam, March 2017.

2. Discourses and narratives

According to Hajer (1995: 44), a discourse is a "specific ensemble of ideas, concepts, and categorizations that are produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities." Benjaminsen and Svarstad (2008) and Svarstad and Benjaminsen (2017) define a discourse as a way of comprehension shared by many people. Discourses are based on assumptions, arguments and statements, and can be regarded as lenses that you see a certain topic through.

While a discourse is a framework for understanding broader and more abstract phenomena, a narrative is a social construction of a more specific case (Benjaminsen and Svarstad, 2008: 51). According to Roe (1991: 288), development narratives exist "to tell stories or scenarios that simplify the ambiguity" of practitioners, bureaucrats and policymakers, especially in rural development. A narrative is a story. This means it has a beginning (typically a problem), a middle, and an end, which can be a solution, a premise, or a conclusion in an argument. Narratives are meant to simplify, to inform the reader, but also to provoke feelings, and the actors in a narrative are often portrayed as heroes, victims or villains. Roe (1991) argues that development narratives are not so much concerned with what *should* happen as with what *will* happen. The objective of such narratives is therefore often to persuade the reader to engage in or act upon the presented problem. Roe's concept of narrative policy analysis can be used to explain how certain stories dominate and how they lead to action through policies or implemented schemes (Roe, 1994). For example, Molle (2008: 31) draws on narratives as storylines related to policy models to explain how policy is formed in the water sector in Africa. In this paper, I draw on narratives as storylines to illustrate how green economy policies are informed, shaped and institutionalized.

Furthermore, I build my analysis on the concept of discourse institutionalization, based on the work by Hajer (1995: 61). He theorized the concept to shed light on how and when a given discourse is translated into policy and institutional arrangements. Discourses legitimate knowledge, and "coordinate the actions of . . . people and organizations" (Dryzek, 2013: 10), especially in global politics, power and practices (Hajer, 1995). Hajer (1995: 1) defines environmental discourses as "fragmented and contradictory," and as "an astonishing collection of claims and concerns brought together by a great variety of actors." He used the example of

ecological modernization to demonstrate how theoretical concepts from this approach were translated into politics. In this paper, I draw on discourse institutionalization to illustrate how discourses feed into the formation and institutionalization of green economy policies.

I see a discourse as a leading approach within a theme, in this case the green economy, which functions as a framing or a shared perception of that theme. This builds on the work of Dryzek (2013: 9), who holds that a discourse enables "those who subscribe to it to interpret bits of information and put them together into coherent stories or accounts." In this paper, I examine how discourses shape agency and policy, and how discourses are informed and driven by narratives, as selected bits of information. This paper is therefore also a contribution towards understanding the narratives and discourses that drive green economy implementation in the Global South.

3. Green economies

The green economy is supposed to be (1) a framework for climate mitigation, (2) a new driver for economic growth, and (3) a tool for poverty alleviation, in total functioning as an overall catalyst for the achievement of sustainable development; in other words, it is rather substantial and ambitious. UNEP's report *Towards a Green Economy* (UNEP, 2011) went far in laying the foundation for the mainstreaming of green economy concepts, agendas and policies after Rio+20. Furthermore, the OECD's report *Green Growth: Overcoming the Crisis and Beyond* (OECD, 2009) has been particularly influential in the business sector and for governments of industrialized countries. According to the OECD;

> Green Growth means fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. To do this, it must catalyse investment and innovation which will underpin sustained growth and give rise to new economic opportunities (OECD, 2011: 4).

The above-discussed green economy definitions and concepts are widely used among actors from different positions, including environmentalists, practitioners, the business sector, and politicians, and has gathered different actors with different agendas behind the same proclaimed, but fuzzy, goals. While calls for radical transformations are widely ignored, the green economy and particularly green growth, has attracted attention at the highest levels (Scoones et al., 2015: 1).

However, actors usually disagree on the *methods* of achieving these goals, and on what the green economy agendas comprise.

Given the ambiguity of the green economy, it is necessary to distinguish between green economy schemes that are being rolled out in various contexts, on the one hand (Mazzacuto, 2015; Newell, 2015; Parr, 2016; Spratt, 2015), and green economy discourses that shape the policies behind these practices, on the other hand (Dryzek, 2013; Hajer, 1995; Scoones et al., 2015). Following Hajer's concept of "discourse coalitions" (Hajer, 1993), many distinct versions of a green economy can be identified, and the green economy has been categorized discursively in several ways. Ferguson (2015) suggests a tripartite categorization: a *weak* green economy, a *transformative* green economy, and a *strong* green economy, according to the approaches' potential in realizing a green shift. Ehresman and Okereke (2015) follow a similar path, with three types of green economy based on how substantial they are: a *thick* green economy, a *moderate* green economy, and a *thin* green economy. This is similar to Bina's (2013) identification of three categories of a green economy: *almost business as usual*, *greening* and *all change*. Death (2015) distinguishes between four contrasting green economy discourses: *green resilience*, *green growth*, *green transformation*, and *green revolution*.[5] He discusses how these discourses are manifested in national green economy strategies and policies, and despite being fundamentally different, they are usually categorized under the same green umbrella by their proponents. This illustrates how there is a lack of a common understanding of not only the green economy concept itself, but also the appropriate methods to achieve it. Scoones et al. (2015) identify four broad approaches (or as they call it, "narratives") to a green transformation. Each of the approaches reflects different views on the concept of sustainability, and represents different framings of the problem as well as the solutions that are presented. The first approach is a reformist narrative based on a *technocentric* view of transformation, and the second is, not surprisingly, a call for *marketized* transformation. Scoones et al.'s third approach is *state-led* transformation, and the fourth is a *citizen-led* green transformation. Tellingly, these four approaches differ in the views on whose mandate it is to drive or steer a green transformation. Finally, Dryzek (2013) proposes four "cells" that represent different ways of perceiving environmental problems. The first cell is *environmental problem solving*, which builds on eco-modernization, and the second is a *limits and survival* discourse that

[5] The Green Revolution discourse identified by Death (2015) must not be confused with the Green Revolution that took place in the 1960s, or with the new green revolution for Africa, which is discussed in this paper.

stems from the 1970s (Meadows et al., 1972), and that has been reinvigorated today under ideas of planetary boundaries (Rockström et al., 2009). Dryzek's third cell is *sustainability*, which is identified by "imaginative attempts to dissolve the conflicts between environmental and economic values that energize the discourses of problem solving and limits" (Dryzek, 2013: 16). The fourth and final discourse proposed by Dryzek (2013) is *green radicalism*, which is similar to Death's *green revolution* discourse.

These discourses by far represent the most common green economy agendas and concepts. While some broader approaches and solutions are presented, two overall discourses can summarize the main agenda of the mainstream green economy: *green growth* and *green (technological) transitions*. However, when implemented in the Global South, these agendas merge and transform into a *modernization of natural resource management* agenda and discourse. I argue that this discourse is the result of how prevailing narratives feed into green economy agendas in the process towards policy implementation, particularly in developing countries with rich resource bases. The modernization agenda not only represents an increasing practice, but also a distinct green economy discourse that has not been sufficiently recognized in the literature. The following analysis is therefore a contribution towards an understanding of how the green economy agenda translates to policies in the global South, as well as how narratives inform, shape and justify discourses in their process towards institutionalization and policy implementation.

4. Narrating problems and solutions in the green economies of the Global South

A main initial driver behind the green economy is the recognition that the pressure on the planet is reaching its limits (Rockström et al., 2009; UNEP, 2011). This "limits" idea is not new. The Club of Rome' report *The Limits to Growth*, which was published in 1972, discusses how population growth and unsustainable use of the world's resources threatens the planet and humanity (Meadows et al., 1972; see also Ehrlich, 1968). Malthus (1998 [1798]) was the first to suggest this link, claiming that population growth would outstrip food production. The *Limits to Growth* report focuses more on the destruction of natural resources caused by population growth than on shortages in food production as the biggest problem, hence it has been coined neo-Malthusianism. The principles have been renewed under contemporary global warming and the

green economy, and laid an important foundation for how actors think about natural resource sectors in the green transitions of particularly resource-rich developing countries. However, peculiarly, the "limits to growth" idea has turned into "green growth" under the green economy (OECD, 2009; UNEP, 2011). Indeed, one of the headings in the UNEP (2011: 14) report reads "From crisis to opportunity." While there were different institutions behind the above-discussed reports, the reports nonetheless illustrate how mainstream rhetoric has changed from *limiting* the use of natural resources to a focus on *opportunities* in how natural resources can or should be utilized (World Bank, 2013). Resulting from this, actors focus more on natural resource utilization, management and protection in implementing the green economy, than on limiting or regulating production or consumption that is much more damaging to the planet, but that would disturb the contemporary capitalist system (Kenis and Lievens, 2016; Patel and Moore, 2017).

Thus, there is an interesting combination of ideas. The long-standing scarcity narrative, which has been reinvigorated following the triple F crisis, is coupled with a belief that we can overcome the scarcity crisis if we invest in natural resources, in terms of both capital and technology (Scoones et al., 2018). This is further justified by a narrative saying that while Africa's natural resources are being degraded, they are also pristine, abundant and vast, only waiting to be "developed." I argue that these ideas can be summarized in two main narratives that together comprise a modernization of natural resource management discourse in the global South. The narratives are, first, a "problem" storyline of resource scarcity, degradation, poverty, and overpopulation, and second, a "solution" storyline that we can add technology, "know-how" and capital into natural resource sectors, and to improve the management of these natural resources in order to overcome the aforementioned challenges.

4.1 The problem: "poor people make poor land"

Scoones et al. (2018) argue that the triple F crisis "galvanized a series of scarcity narratives justifying interventions around land and resources." This concerns the broader green economy, too. There is a strong sense of urgency driving the storyline: the global warming and planetary changes we are witnessing are happening at a pace and scale never seen before. The use of terms such as "limits" and "irreversible" is crucial in the framing of this narrative. For example, the FAO (2011: 4) holds that "the accumulation of environmental impacts in [some] key land and water

systems has now reached the point where production and livelihoods are compromised." Furthermore, Cargill (2011, cited in Scoones et al., 2018) argues the following:

> By 2050, an anticipated 70 percent boost in global food production will be necessary to meet the world's growing demand for food. To protect the environment, most of the increase in food production will need to come from increased yields and productivity rather than from the use of additional land.

Moreover, UNEP (2011: 14) states:

> Currently, there is no international consensus on the problem of global food security or on possible solutions for how to nourish a population of 9 billion by 2050. . . . Freshwater scarcity is already a global problem, and forecasts suggest a growing gap.

Another example is the The Nature Conservancy's Adopt an Acre program, which enables consumers to "adopt" (in the exchange for a donation) a piece of land in order to protect it from degradation.[6] On a webpage that has since been removed, they argued that

> 60 percent of Africa's lands and waters – community property, in a sense – are managed by the people who live on them . . . A continuing threat is their lack of control over the communal lands and waters they depend on for survival.[7]

This is a good example of the belief in how "we" should intervene in natural resource management in order to "save" the planet's degrading resource base, and at the same time make money.

As the above quote from The Nature Conservancy (TNC) shows, there is furthermore a long-standing belief that poverty and overpopulation contributes to resource degradation. This argument holds that natural resources in the Global South are being degraded because of poor people's misuse and overuse of those resources (UNEP, 2011; WCED, 1987). Proponents of this view hold that population growth is threatening the natural resource base, and measures to halt population growth should therefore be an integrated part of the solution to hinder planetary degradation – particularly in the Global South, where the problem is perceived to be most serious (World Bank, 2012). This link between poverty, population pressure and environmental degradation in the

[6] https://www.nature.org/en-us/membership-and-giving/donate-to-our-mission/other-ways-to-give/adopt-an-acre/ (accessed May 29, 2019)
[7] http://www.nature.org/ourinitiatives/regions/africa/howwework/index.htm (accessed March 11, 2014)

Global South has persisted since the World Commission on Environment and Development (WCED) report on sustainable development in 1987. The report states that,

> [m]any parts of the world are caught in a vicious spiral: poor people are forced to overuse environmental resources to survive from day to day, and their impoverishment of their environment further impoverishes them, making their survival ever more difficult and uncertain. (WCED, 1987: 28)

Two decades later, UNEP (2011: 15) said that "the link between population dynamics and sustainable development is strong and inseparable" and that

> [a] transition to a green economy can assist in overcoming the contribution that population growth makes to the depletion of scarce natural resources. The world's least developed countries (LDCs) are more strongly affected by environmental degradation than most other developing countries, so therefore they have much to gain from the transition to a green economy (UNEP, 2011: 15).

Scholars have contributed to this view for decades. For example, Hollander (2003: 2) writes,

> The real enemy of the environment is *poverty* – the tragedy of the billions of the world's inhabitants who face hunger, disease, and ignorance each day of their lives. Poverty is the environmental villain; poor people are its victims. Impoverished people often do plunder their resources, pollute their environment, and overcrowd their habitats. They do these things not out of willful neglect but only out of the need to survive.

Powerful actors and policymakers regard sectors such as small-scale agriculture and pastoralism as inefficient and "backwards" production systems that are degrading the environment (Doso, 2014; World Bank, 2013). Although many have raised questions about this link (Angelsen, 1997; Barbier, 2010), these narratives are still frequently in use, and feed into policy frameworks on green transitions of the Global South (Hajer, 1995; Roe, 1994). Thus, it seems that "new" policy frameworks for environmental management meet longstanding narratives that have informed and justified environmental governance and natural resource management in Africa for centuries (Roe, 1991, 1994). For example, the World Bank report titled *Inclusive Green Growth: The Pathway to Sustainable Development* holds that one main problem for what is usually called "natural capital" under the green economy, is that soil is being degraded because of "poor" use, and that "land users need to be given the right economic incentives in preventing or mitigating land degradation" (World Bank, 2012: 110). One chapter in the report is devoted to describing how natural capital, primarily in developing countries, should be managed in new ways in order to implement a green

economy. One problem that the World Bank points to, is how resources such as forests and fisheries in developing countries usually are open access and poorly managed (echoing Hardin, 1968), and this should change. It also holds that soil degradation is a problem due to poor agricultural and grazing practices, which must be managed in new ways. These views are rather common in most key green economy policy documents, such as those by UNEP (2011), the OECD (2009) and the World Bank (2012, 2013, 2019). This illustrates how narratives form solutions that may not always be the most appropriate, as also Roe (1991) holds. Furthermore, Adger et al. (2001: 683) claim that since discourses are often based on shared myths and blueprints of the world, "the political prescriptions flowing from them are often inappropriate for local realities."

Also decision-makers, practitioners and investors, as well as local and national elites, argue along similar lines.[8] For example, one senior representative of a prominent global agribusiness company said the following about smallholders in the African country in which he was based:

> Also soil degradation here is a big, big, big thing. And one of the main reasons is how badly [the smallholders] treat the soil. First of all on the animal life, they devastate absolutely everything they don't need . . . Because they have this thing, smallholders, and then what they do, because they have such a low productivity, they just devastate everything, and it will devastate more and more [soil].[9]

Another agribusiness investor, who was implementing green growth projects in the same country, repeatedly said how the local community was "*scratching dirt*," living from day to day, degrading the soil, the water and the forests in ignorance.[10] According to the investor, the best solution to the problem was to establish large-scale commercial farming led by agribusiness companies that had the knowledge and the technology to manage the land "correctly." A number of interviewed informants echoed these views in their statements, when asked how or why a green economy should be implemented in Africa, the response was usually along the lines of "because land is becoming degraded," "because of mismanagement of natural resources," "because of deforestation," or "rural farmers don't know how to treat the soil."[11] Several informants also

[8] Informant 7, May 6, 2015; informant 45, April 27, 2016.
[9] Informant 37, March 8, 2016
[10] Informant 76, November 4, 2016
[11] Informant 2, May 4, 2015; informant 15, November 6, 2015

blamed population growth for resource degradation of various kinds.[12] The solution to these crises, according to the informants, is to be found in *modernization*. Furthermore, UNEP (2011: 15) argues that "[a] transition to a green economy can assist in overcoming the contribution that population growth makes to the depletion of scarce natural resources."

Political ecologists have repeatedly debunked narratives about environmental scarcity and degradation in the Global South (Fairhead and Leach, 1996; Leach and Mearns, 1996; Scoones, 2001), but such research is hardly taken into consideration in the formation of environmental policies. Instead, the resource degradation narrative justifies intervention in these natures and to a large extent provides an explanation for why there still is a belief in the necessity of "us" intervening to "save" nature from "them" (Eddens, 2017; Gardner, 2017). This has resulted in various interventions in natural resource sectors in the global South, particularly Africa (Scoones et al., 2018). Indeed, Nhamo and Chekwoti (2014) argue that the green economy has sparked a new wave of land grabbing in African countries, and Fairhead et al. (2012) have discussed this as "green grabbing."

4.2 The solution: modernizing natural resource management

A second narrative co-exists with the scarcity narrative, saying that there is an abundance of natural resources and available land in African countries. Scoones et al. (2018) too found that an abundance narrative exists alongside the scarcity narrative, holding that investment areas are "abundant, empty, idle and underutilized." Green economy policymakers, practitioners and governments adhere to the storyline that degraded or underutilized resources will prosper and be of high economic value only if we allow technology and market forces to "develop" them in the name of the green economy (World Bank, 2013, 2019). In this way, ideas about scarcity and abundance are juxtaposed and represent two sides of the same story. This win-win narrative holds that the world's natural resources are pristine and under threat, but at the same time extremely valuable, with tremendous potential for capital accumulation.

The key green economy policy documents usually focus on the latter (i.e., the potential for capital accumulation). For example, one-third of UNEP's report titled *Towards a Green Economy* (UNEP,

[12] Informant 2, May 4, 2015; informant 45, May 27, 2016.

2011) is devoted to natural capital and how we should invest in it in order to establish a green economy. Therefore, in developing countries with rich resource bases, "modernization" often means modernization of the management of natural resources (OECD, 2009; UNEP, 2011; World Bank, 2012). This includes both methods of *protection* of natural resources to hinder planetary degradation and modernization of the *utilization* and management of natural resources for the purpose of development and (green) economic growth (World Bank, 2019). Brockington and Ponte (2015: 2197) point to initiatives such as carbon payments, ecotourism, and biodiversity offsets to demonstrate the expansion of the green economy in the Global South. Such initiatives are frequently used by its proponents as examples of how nature can be protected while at the same time accumulate economic growth. This illustrates how powerful actors and discourses have changed the rhetoric from a focus on global crises and planetary degradation, to a story about natural resource sectors where investment opportunities are ample, as well as how new management schemes must be implemented in order to "restore" natural capital (OECD, 2009).[13]

The modernization discourse is primarily evident in land use and the agriculture sector. The Malthusian dilemma of how to feed the world's growing population is a core theme in the green economy (UNEP, 2011; WEF, 2010). Hence, actors hold that modernizing agriculture and land use is crucial for achieving a green economy. This is a powerful narrative. For example, the OECD (2011) argues that natural resources should be conserved and used more efficiently (i.e., managed in new ways or invested in) in order to achieve green growth. Similarly, the World Bank recently published a report on why improved management, modernization and protection of Tanzania's natural resources are crucial in achieving "green development" and sustainability (World Bank, 2019). This was emphasized also by many of the informants, such as a professor in land use: "Capital is searching through this country for places to invest. There's a lot of underutilized land. Capital wants to utilize it."[14] Similarly, at the Global Green Growth Summit in 2016, a senior associate from the International Institute for Environment and Development (IIED) started his panel talk by announcing to the 1200 people in the audience, "If you're from an African government, please sell your land to investors! In that way we can create green jobs for the poor!"[15] This view illustrates the focus on capital investments and modernization of natural resource

[13] Informant 59, September 8, 2016; informant 53, September 7, 2016; informant 48, August 6, 2016.
[14] Informant 3, May 6, 2015
[15] Informant 48, September 6, 2016

management in the green shift of the Global South, and the belief that external intervention is necessary. Such policy ("creating green jobs on land sold to foreigners") is a result of the belief in the degradation narrative, as well as the focus on poverty ("*we* can give *them* jobs").

Furthermore, according to the World Bank (2012: 17), of 16 guiding principles for how to establish green growth strategies in the Global South, 10 deal directly with renewed environmental management. They place an emphasis on carbon pricing, stricter water regulation, better forest management, coastal zone and fisheries management, land use planning, and more "targeted" agricultural practices. Moreover, the World Bank states:

> [d]ifferent resources require different types of policies. For extractable but renewable resources, policy should center on defining property rights and helping firms move up the value chain. For cultivated renewable resources, policy should focus on innovation, efficiency gains, sustainable intensification, and "integrated landscape" approaches. (World Bank, 2012: 105)

When introducing the World Bank's "Climate Change Investment Plan" for Africa [16] during a roundtable discussion at the Global Green Growth Summit in 2016, a senior World Bank representative, who was working on climate change policies, said that,

> in the agricultural system, there's lots of changes to think about, and thinking about changes in livestock feeding, that can on the one hand increase productivity, on the other hand increase resilience to climate change, and on the third hand reduce emissions. It is possible to have these win-win-win solutions. These are the three underlying principles for our climate change actions.

Moreover, regarding an African country, the same representative said "we're working on the sustainable land management program, working nationally to transform landscapes at scale in order to build this resilience. And we're working on a REDD+ initiative on the forestry side to integrate land use planning in the forestry sector. There's a whole range of these different things that can change a lot."[17] This urge to "transform" landscapes essentially builds on the degradation

[16] The policy strategy was called a climate change investment plan. However, I was unable to find a plan with this title, but the World Bank does have a *Africa Climate Business Plan*, which might have been what the representative meant. For the 2016 version, see http://www.worldbank.org/en/region/afr/publication/africa-climate-business-plan-key-messages and for an updated version see http://www.worldbank.org/en/programs/africa-climate-business-plan (both accessed May 30, 2019).
[17] Informant 53, September 7, 2016

narrative and the belief that natural resource sectors must be managed in new ways. It exemplifies how "green growth" has been informed by persisting narratives on its way to policy implementation.

Key policy documents and informants such as those mentioned above generally focus on property rights, innovation, and modernization of how natural resources are both managed and utilized, which exemplifies the modernization discourse. These actors see modernization as a necessary step to take in sectors that are perceived as traditional, outdated and underdeveloped, such as pastoralism and agriculture, as well as other land use systems.[18] A general argument is that developing countries with "outdated" production systems should "upgrade" to the level of developed countries' production systems by a "flow of knowledge, experience and equipment from one area to another," usually from developed countries to developing countries (UNEP, 2011: 234). Clearly, there is a framing of villains in this picture: poor people degrade the soil with their outdated production systems, lack of knowledge and ignorance, who are regarded also as the "victims" in the same story (alongside *nature* as a victim), and the "heroes," which are actors—policymakers, practitioners, environmentalists, and investors—who implement green economy strategies such as capital inflows, technology transfers, and essentially *modernization* to solve these crises.

Such ideas are particularly evident in the agriculture sector and the new green revolution for Africa (Gengenbach et al., 2017; Patel, 2013), which increasingly has been merged with the green economy [*references removed for peer review purposes*]; Bergius et al., 2018; Moseley, 2017; WEF, 2010). Under the green economy, efforts in developing the agriculture sector have been combined with environmental concerns and climate measures. Poverty reduction and economic growth spurred by investments in the agriculture sector are by its proponents believed to have the potential to assure environmental sustainability (Daño, 2007; FAO, 2017). A vast number of policy documents discuss and frame the green economy and the new green revolution under similar agendas and goals (WEF, 2010). This conceptual fusion proposes a greener repetition of the original green revolution ([*reference removed for peer review purposes*]; CGIAR, 1996; Conway, 1997) to feed a growing world population sustainably. According to Bill Gates, "we need both

[18] Informant 53, September7, 2016

productivity and sustainability – and there is no reason we can't have both . . . the next Green Revolution has to be greener than the first" (Gates, 2009). UNEP (2011: 36) too, holds that one of the most pressing problems in the contemporary world is "feeding an expanding and more demanding" world population, and "attending to the needs" of those that are undernourished, while at the same time addressing climate change. Hence, they argue that "environmental degradation and poverty can be simultaneously addressed by applying green agricultural practices" (UNEP, 2011: 36). A core theme within the modernization of natural resource management discourse is therefore modernization of and investment in agriculture under brands such as climate-smart agriculture (FAO, 2010) and agriculture green growth (SAGCOT, 2013). The World Bank has presented agribusiness in Africa with the narrative that while Africa has "an abundance" of both land and water, it lacks the capital, knowledge and technology to "unleash" its opportunities (2013: 17). The World Bank also holds that Africa has become the "final frontier" for agribusiness (World Bank 2013: 17), which exemplifies the understanding of the green economy as a "spatial fix" in contemporary capitalist reorganization (Harvey, 2001; Patel and Moore, 2017). Other proponents hold, for example, that "there is substantial untapped potential for the development of the continent's water and land resources for increasing agricultural production" (NEPAD, 2003: 24), and "[t]he continent is endowed with many natural resources, including plentiful land and fertile soils" (UNECA, 2013: 8). In an interview, an informant who was a foreign land investor in Tanzania asked,

> Have you ever flown across this country? All you can see is vast land areas which are just laying there. As far as your eye can see. There is plenty! Of no use! And, you know… the massive population growth… the number of people in this country is going to reach… I don't know. It's a foreseen catastrophe.[19]

Not only foreign investors hold this view, but also elites and national stakeholders promote similar views when arguing why a green transition is necessary. For example, the former president of Tanzania, President Kikwete invited investors to "utilize" all the available land in the country, insinuating that more than 70% of Tanzania's arable lands were readily available for investment

[19] Informant 7, August 6, 2015.

(SAGCOT, 2012: 4).[20] He claimed that the land merely needed for technology and capital in order to be developed. Such statements fall under the scarcity narrative, as also Bergius et al. (2018) and Sulle and Nelson (2009) argue. Narratives such as this feed into policies that are formulated (Hajer, 1995; Molle 2008). This can be seen clearly in several African countries where large-scale land investment schemes that aim to improve production, alleviate poverty, accumulate economic growth, and at the same time act as climate measures, have been rolled out since the triple F crisis ([*reference removed for peer review purposes*]; Scoones et al., 2018; WEF, 2010).[21] The policy strategies in such initiatives are to a large extent based on narratives of scarcity and degradation, presenting problems that are presumed to be solved by modernization in the forms of technology and capital inflows to natural resource sectors that are not utilized to their full potentials (World Bank, 2019).

In addition to modernizing the management of natural resource sectors and "developing" them with technology and capital, there is a strong belief that in order to save the world's natural resources, we must attribute monetary values to them (OECD, 2009; UNEP, 2011). The view that natural resources must be valued economically to ensure the survival of ecosystems has been evident in policy documents and rhetoric since the triple F crisis (OECD, 2009). According to UNEP (2011: 17),

> A green economy that values environmental assets, employs pricing policies and regulatory changes to translate these values into market incentives, and adjusts the economy's measure of GDP for environmental losses is essential to ensuring the well-being of current and future generations.

Furthermore, UNEP (2011: 18) holds that "environmental valuation and accounting for natural capital depreciation must be fully integrated into economic development policy and strategy." Moreover, "due to the poor management of the biological resources and ecosystems that are the source of [commercial] goods, . . . the market prices do not reflect unsustainable use and

[20] Exactly how much land is "available," and how its is measured, is a matter of dispute, but the amount is probably closer to 0% than to 70%, as most agricultural land in Tanzania is under smallholder production (Bergius et al., 2018: 831).

[21] Examples include the Southern Agricultural Growth Corridor of Tanzania (SAGCOT), the Beira Agricultural Growth Corridor (BAGC) in Mozambique, the Ghana Commercial Agriculture Project (GCAP), the Green Belt Initiative (BGI) in Malawi, the Bagré Growth Pole in Burkina Faso, and the Nacala Growth Pole in Mozambique, also called the ProSAVANA project.

overexploitation" (UNEP 2011: 18). In this regard, UNEP (2011: 19) argues that we need to better control the environment in order to make money from it:

> The role of policy in controlling excessive environmental degradation requires implementing effective and appropriate information, incentives, institutions, investments and infrastructure. Better information on the state of the environment, ecosystems and biodiversity is essential for both private and public decision making that determines the allocation of natural capital for economic development. . . . Such instruments are also important in correcting the market and policy failures that distort the economic incentives for improved environmental and ecosystem management.

The quotation illustrates the belief in the need for *intervention* in ecosystems in order to avoid externalities in production, to ensure capital accumulation, and to protect nature. Thus, in order to save *nature*, and at the same time earn money from it, we must attach monetary values to it:

> The world's population depends on ecosystem services, but in economic terms, these services are typically "free" and consequently, increasingly overexploited. One promising approach to sustaining vital ecosystem services is to enable market-based mechanisms to mediate supply and demand, putting a price on these services. Market-based mechanisms can then generate financing for sustainable management and long-term conservation of ecosystem services. (Ecosystem Marketplace, n.d.)[22]

Putting a price on nature forges transformed management of natural resources, framed as "modernization." This is found in schemes such as carbon forestry and conservation, including the Reducing Emissions from Deforestation and Degradation (REDD+) scheme (Sperling and de Kock, 2010). This includes implementing taxes and incentives to ensure that natural resources are utilized sustainably. However, it also implies investing in natural resource sectors in order to save the *economy.* OECD's (2009) green growth policy has primarily been mainly concerned with how natural resources can continue to provide assets to humans, while at the same time accumulate new, green economic growth in the aftermath of the financial cracks. According to Arsel and Büscher (2012), nature has increasingly become a "trademark incorporated," and is thus setting standards for environmental conservation, management and policy, and new ways of capital accumulation, as also discussed by Büscher and Fletcher (2015), Castree (2008) and Heynen et al. (2007).

[22] One of the first attempts to price ecosystems comprehensively was in the late 1990s (Constanza et al., 1997).

Commodification of natural resources and ecosystem services (Brockington, 2011; Sullivan, 2013) has directed many actors' interests towards what are perceived as "underdeveloped" markets and "underutilized" resources in many parts of the Global South, particularly in Africa, as discussed earlier (World Bank, 2013). Büscher and Fletcher (2015: 273) argue that the new mode of accumulation following the triple F crises is best described as "accumulation by conservation," defined as "a mode of accumulation that takes the negative environmental contradictions of contemporary capitalism as its departure for a newfound 'sustainable' model of accumulation for the future." This justifies interventions in nature, and largely explains how the green economy is regarded as an opportunity to find new ways to profit from natural resources (Brown et al. 2014). Particularly the business sector has therefore regarded the triple F crisis as an opportunity rather than a crisis. Thus, in line with Harvey (1981, 2001), the frontiers of this discourse appear as "spatial fixes" to capitalism's internal contradictions (Harvey, 2014; O'Connor, 1991). The concept of a "spatial fix," means that capitalism will expand continuously into new sectors and areas in order to survive. This means not only expanding into new "spaces," but also finding new solutions ("fixes"), which are often short-term and not sustainable. From this perspective, the green economy emerges as a new "frontier" in contemporary capitalist reorganization (Wanner, 2015).

Markets and capital are expected to spur economic growth and technological innovation, and vice versa. This idea is not new, rather it echoes classic modernization thinking. As [*reference removed for peer review purposes*] hold, modernization thinking in the post-war period, when the "development project" initially took off (McMichael, 2012), "spelled out a geographical divide between the 'progressive' cores of 'modernity' and the 'lagging' peripheries of 'tradition'." Development equaled modernization (Rostow, 1960), and controlling nature and resources through the use of capital and technology was core in this thinking. These ideas have been reinvigorated under the green economy, and a wide range of initiatives are increasingly being framed in this context [*reference removed for peer review purposes*]. When implemented in the Global South, these discourses meet a narrative of resource degradation, overpopulation and poverty, which can be discussed under a discourse institutionalization framework (Hajer, 1995).

5. Modernization of natural resource management as green economy: a case of discourse institutionalization

The green economy is often branded and implemented in ways that do not correlate with the ambitious promises made in key policy documents. I argue that this gap can be explained by discursive powers and the ways in which discourses are institutionalized through policies (Hajer, 1995). In this paper, I seek to illustrate how powerful narratives and discourses influence policies on their way to implementation. Hajer (1995: 61) uses the concept of discourse institutionalization to explain how discourses translate into institutional and policy arrangements. This can help illustrate how actors interpret, transform and take advantage of the green economy agenda. Dryzek (2013) and Hajer (1995) hold that discourses must be regarded as "lenses" through which topic can be seen. In the formation of policies, actors such as green economy policymakers or governments consciously or unconsciously draw on a variety of selected arguments and narratives to establish new policies and practices in responses to new situations, such as the green economy. In this paper, I have examined how a resource degradation narrative and a resource abundance narrative merge and result in a discourse of modernization of natural resource management in green economy policies in the Global South.

Key green economy policies are often based on prevailing narratives that first state the problem, and then propose solutions to them. How the policies are formed and what drives them is often not clear, and can happen through "invisible" power structures, since discourses usually have an unconscious influence over those who adhere to them. The concept of governmentality (Foucault, 1991; Li, 2007) can explain and guide the analysis of how discourses have conscious or non-conscious influence over the governing processes in the implementation of policies (Foucault, 1991). Accordingly, the related notion of environmentality (Luke, 1999) can illustrate how the green economy, as environmental policies, is implemented through top-down steering affected by global discourses and power structures.

Proponents of a discourse see the topics of relevance through discursive lenses, and the formation of policy takes place colored by these lenses ([*reference removed for peer review purposes*]). For example, whereas the green growth discourse rests on the narrative about our need to "price nature," it merely implies "pricing nature to save the *economy*," and not necessarily "pricing nature

to save *nature*" (Dempsey and Suarez, 2016; Juniper, 2012; McAfee, 1999). When implemented in the Global South, this green growth discourse is informed by the aforementioned degradation narrative, and is accordingly transformed into a "saving nature" storyline that masks how these "natures" were initially framed as investment opportunities (Bailey and Caprotti, 2014; Death, 2015).

Death (2015: 2208) argues that we need to pay more attention to strategies that are being deployed in developing countries, "some of which are mobilizing the green economy in ways which have only peripheral relationships to the traditionally 'green' issue areas of conservation and natural resource management." Bailey and Caprotti (2014: 1799) call this a "mosaic of practices that displays both synergistic components and dysfunctional overlaps and which has hazy systems of accountability for ensuring consistency between higher level visions of the green economy visions and on-the-ground green-economy strategies." This is an example of how discourses are colored and transformed on their way to policy implementation. Informed by the neo-Malthusian resource degradation narrative, the green economy in the Global South is therefore often implemented through schemes that seek to protect, modernize or profit from "green" sectors, resulting in transformed ways in which natural resources are managed, governed and controlled. Scoones et al. (2018) argue that these narratives lead to transformed changes in the ways natural resource sectors are being managed, and that they "justify changes in access to and control over resources."

Modernization of natural resources and controlling the environment are not new phenomena; rather, governments and elites have historically aimed to control people's use of natural resources in many ways. However, this urge to control nature has been reframed under the green economy. Elite narratives about resource management and control have proved to survive despite evidence to the contrary. For example, Engström and Hajdu (2018) demonstrate how a development narrative keeps feeding into the implementation of large-scale agricultural investments despite continuous evidence of its shortcomings, and Svarstad and Benjaminsen (2017) demonstrate how REDD+ in Tanzania has been presented as successful despite lack of evidence of this success. Moreover, Gardner (2017) demonstrates that global elite policies influence conservation schemes based on discursive policies rather than local realities. Roe (1991) points to several discourses from rural Africa that have persisted despite "strong empirical evidence against its storyline,"

demonstrating how power influences policy implementation regardless of the realities, as also shown by Ferguson (1994) within development aid.

This paper shows how narratives of resource degradation, scarcity and population pressure have coupled with an abundance narrative, which in turn leads to narratives about how natural resources should be managed, protected and utilized in new ways. The fact that elite discourses steer policy interventions in natural resource management in African countries both explains and illustrates the modernization discourse, and demonstrates that apolitical narratives take little or no account for how power dynamics, elite capture, production systems, and distribution drive interventions in natural resource sectors in the Global South under the green economy. The outcomes of policies implemented under the modernization discourse are therefore a good example of how political ecology can have a voice in contemporary green economy debates. As Adger et al. (2001: 682) argue, "a key issue within political ecology is the exploration of multi-level connections between global and local phenomena, not only in environmental functions but also in decision-making and hierarchies of power." Hence, political ecology can be a useful tool for tracing implemented policies and initiatives within "green" sectors from green economy discourses to policy implementations.

6. Conclusions

In this paper, I have argued that the green economy in the Global South often is narrated under a discourse of modernization of natural resource management. This is a result of how mainstream green economy agendas and discourses, such as green growth and green transitions, transform in their process towards policy implementation in the Global South. I argue that persisting narratives feed into and shape the green economy agendas and discourses in the translation to policies. Particularly two narratives feed into the formation of green economy policies in the global South: first, a persisting neo-Malthusian narrative of resource degradation, scarcity, poverty and overpopulation in the Global South (the problem narrative), and second, a solution narrative that we can overcome the crises by modernizing natural resource management and utilization. In this regard, the scarcity narrative is coupled with an "abundance" narrative, particularly in the African context, holding that while Africa's natures are pristine and under threat, they are also abundant and underutilized, and should be invested in—or "developed—in order to accumulate green growth, as well as for the purpose of environmental preservation. In conclusion, this represents the

modernization discourse of the green economy in the Global South. In this paper, I have shown how and argued why discourses inform, justify and drive green economy policies in the Global South, and the result of these discursive drivers is seen in various green economy agendas and schemes played out in practice. Often, these green economies manifest in initiatives that are distant from the ambitious green economy agendas that were initially proposed at global scales. I argue that this is a result of how discourses transform, how they are shaped by narratives, and how they influence policies in their institutionalization. This paper is a contribution towards emphasizing why a discursive angle is useful for investigating how the green economy manifests in practice in the Global South.

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ANNEX 1: LIST OF INFORMANTS

Method:	Name:	Title:	Affiliation:	Location:
Semi-structured interview	Christine Noe	Associate professor, geography	University of Dar es Salaam	DSM
Semi-structured interview	Søren Dalsgaard	Consultant and environmental specialist, head of SAGCOT partnership	Royal Norwegian Embassy in Tanzania	DSM
In-depth interview	Ally Hassan Namangaya	Professor, head of internal SAGCOT assessment report	Ardhi University	DSM
In-depth interview	John Nakei	Social and Environment Specialist	SAGCOT	DSM
In-depth interview	Guri Sandborg	Deputy Director General	Norwegian Ministry of Climate and the Environment	Oslo
In-depth interview	John J. Kyaruzi	Executive Secretary	SAGCOT Catalytic Trust Fund (CTF)	DSM
In-depth interview	Per Carstedt	Executive Chairman	Agro EcoEnergy Tanzania ltd.	DSM
Participatory observation+ unstructured interviews	*unknown*	Farmers and rural dwellers	Nane Nane farmers' day	Mbeya
2 unstructured conversations	Jennifer Baarn	Deputy Chief Executive Officer (CEO)	SAGCOT	Mbeya
2 unstructured conversations	Geoffrey Kirenga	Chief Executive Officer (CEO)	SAGCOT	Mbeya
Semi-structured interview	Maria Ijumba	Head of Cluster Development	SAGCOT	Mbeya
Semi-structured interview	Dionis Tshonde	Sales agronomist	Yara Tanzania ltd.	Mbeya
Unstructured conversation	Jesko Linga	Field officer	Mtenda Kyela Rice Supply co. ltf.	Mbeya
Unstructured interview	*Unknown*	2 booth representatives	Syngenta	Mbeya
Unstructured interview	*Unknown*	2 booth representatives	Monsanto	Mbeya
Unstructured interview	*Unknown*	2 booth representatives	Seed-Co	Mbeya
Unstructured interview	*Unknown*	2 booth representatives	East Africa Fruits	Mbeya
Unstructured interview	*Unknown*	2 booth representatives	Profate Investments ltd.	Mbeya
Unstructured interview	*Anonymized*	Trainee	SAGCOT center	Mbeya
In-depth interview	Nakambo Tenende	Program Officer	Haki Ardhi Land Rights Research & Resources Institute	DSM
In-depth interview	Martin Masalu	Research Officer (head of SAGCOT partnership)	Tanzania Investment Center (TIC)	DSM
In-depth interview	Elias Mtinda	Agriculture and Land Rights Manager	ActionAid Tanzania	DSM
Semi-structured interview	Bente Herstad	Policy Director	Department for Climate, Energy and Environment Section for Climate, Forest and Green Economy, Norad	Oslo

Semi-structured group interview/ focus group	Øystein Botillen Pål Øystein Stormorken Svein Flatebø	Manager Former director Senior Advisor	Global Initiatives, Strategy and Business Development Yara International Yara Tanzania Sponsorships & Special Projects, Corporate Communications and Branding Communication, Yara International	Oslo
Semi-structured interview	Erik Solheim	Chair	The Development Assistance Committee OECD (later UNEP)	Paris
Semi-structured interview	*Anonymized*	Assistant Director of Policy	Ministry of Agriculture, Food Security and Cooperatives - Department of Policy and Planning, Government of Tanzania	DSM
Unstructured interview	Luca Crudeli	*Unknown* (head of DFID SAGCOT assessment)	DFID	DSM
Semi-structured interview	*Anonymized*	Ward Executive Officer	Makurunge Ward	Makurunge
Focus group	*Anonymized*	Village chairman + 13 farmers		Bozi
Semi-structured interview	*Anonymized*	2 farmers (married, elders)		Bozi
Focus group	*Anonymized*	19 farmers		Bozi
Semi-structured interview	*Anonymized*	Town planner	Land and Natural Resource Department, District of Bagamoyo	Bagamoyo
Unstructured interview	*Anonymized*	Agricultural Extension Officer + secretary	Agriculture Department, District Government of Bagamoyo	Bagamoyo
Semi-structured interview	Godfrey Machabe	Program Coordinator	Land Tenure Support Programme, Ministry of Lands, Housing and Human Settlements Development, Government of Tanzania	DSM
Semi-structured interview	*Anonymized*	Agricultural Engineer	District Government of Bagamoyo	Bagamoyo
Focus group	*Anonymized*	Former village chairman + 14 farmers		Number Nne
Focus group	*Anonymized*	12 farmers		Gama Makaani
Semi-structured group interview	John Rutagbwa Flora Mrosso	Senior ecologist Agricultural officer	Rufiji Basin Development Authority (Rubada) (parastatal government agency), Tanzania	DSM
Semi-structured interview	Charles Mariki	Senior Urban Planner	President's Office, Ministry of Regional Authorities and Local Governance, Government of Tanzania	DSM
In-depth interview	Jayson M. Kami	Director of Land Use Coordination, Communication and Policy,	National Land Use Planning Commission, Ministry of Lands, Government of Tanzania	DSM

Semi-structured interview	Joseph Kihaule	Principal Environmental Officer	Vice President's Office, Department of Environment, Government of Tanzania	DSM
Semi-structured interview	Alexandre Macedo	Managing Director Managing Director	Yara Tanzania Crop Nutrition Africa	DSM
In-depth interview	Sean de Cleene	Senior Vice President	Global Initiatives, Strategy and Business Development Yara International (later AGRA)	DSM
Unstructured interview	Rachele Arcese + *unknown* colleague	Program Officer East and Southern Africa	IFAD (International Fund for Agricultural Development)	DSM
In-depth interview	Adam Stefan	Private sector unit lead	USAID	DSM
Semi-structured interview	Benson Ngene	Global development advisor (head of SAGCOT assessment)	Dalberg Consultancies	DSM
Semi-structured interview	Aksel Nærstad	Senior development policy advisor, agriculture and food security Founder and chairman	Utviklingsfondet More and Better Network	Oslo
Semi-structured group interview	Elin Ersdal Ola Nafstad	Investment Director, Food and Agribusiness Head of Department, Strategy and Analysis	Both: Norwegian Investment Fund for Developing Countries (Norfund)	Oslo
In-depth interview	Odd Eirik Arnesen	Senior policy advisor	Department for climate, energy and environment, section for environment and food security, Norad	Oslo
In-depth interview	Pål Øystein Stormorken	Former director of Yara Tanzania	Yara International	Oslo
Unstructured interviews	*Anonymized* *Anonymized*	Senior policy advisor Senior advisor	Norwegian Ministry of Climate and Environment Department for Climate, Energy and Environment Section for Climate, Forest and Green Economy, Norad	Jeju
Unstructured interview	*Anonymized*	Director of Engagement	Green Economy Coalition	Jeju
Semi-structured interview	Amanda McKee	Knowledge Management Specialist	Green Growth Knowledge Platform	Jeju
Semi-structured group interview	John Nakei Austin Makani	Social and Environment Specialist Communication Manager	SAGCOT	DSM
Semi-structured interview	*Anonymized*	Senior policy representative	The Nature Conservancy Tanzania	DSM
Semi-structured interview	Mary Mgonja	Country head	AGRA Tanzania	DSM
Telephone and e-mail correspondence	Mvihawa Ngosi	Permanent Secretary Member of	Vice President's Office SAGCOT Green Reference Group (GRG)	DSM
Semi-structured interview	William Ngeno	Commercial manager	Yara Tanzania	DSM
Semi-structured interview	Cleophas Rwechungura	Communication officer	Agricultural Council of Tanzania ACT	DSM
In-depth interview	*Anonymized*	2013-2015: CEO 2008-2013: Permanent Secretary 2006-2008: Deputy PS 1996-2006: Permanent Secretary	President's Delivery Bureau Prime Minister's Office Ministry of Agriculture Ministry of Finance (all: government of Tanzania)	DSM

Semi-structured interview	Carter Coleman	CEO	Kilombero Plantations Ltd.	DSM
Unstructured interview	Amon Mattee	Professor, agriculture extension	Sokoine University of Agriculture (SUA)	Morogoro
Semi-structured interview	Nyemba Stanislaus	*unknown*	Mviwata	Morogoro
In-depth interview	Andrew Temu	Associate professor Member of the Board of Directors Chairman of the Board of Trustees Chairman of the Audit Committee Member of the Steering Committee Board member Former board member *Unknown* Board member Board member	SUA TIC Private Agriculture Sector Support Trust (PASS) Board of Directors of the CRDB Microfinance Services Company 'Linking Farmers to Markets' Initiative, FAO SAGCOT board ACT ProRustica Africa Guarantee Fund Financial Sector Deepening Trust (FSDT)	Morogoro
Semi-structured interview	Mary Ndaro	Coordinator of Land Rights Program Member	CARE Tanzania SAGCOT GRG	DSM
Un-structured interview	Elbariki Wilfred	Town and regional planner	Tanzania Investment Center (TIC)	DSM
Semi-structured interview	*Anonymized*	Africa Lead Coordinator	SUSTAIN, IUCN	Skype
Semi-structured interview	Ivar Jørgensen	Policy Director	Department for Climate, Energy and Environment Section for Climate, Forest and Green Economy, Norad	Oslo
Unstructured interview	Ronald Mtana	Environment specialist	SAGCOT	Songea
Unstructured conservation	Geoffrey Kirenga	Chief Executive Officer (CEO)	SAGCOT	Iringa
Unstructured conversation	Salum Shamte	Chair Former chair (2006-2013) Board member (2013- current) Member Vice Chairman	SAGCOT board ACT ACT Tanzania National Business Council (TNBC) Tanzania Private Sector Foundation (TPSF)	Iringa

*NOTE that some informants were interviewed several times.
**NOTE that informant codes and dates of interviews have been removed for the sake of anonymity.

ANNEX 2: EVENT ETHNOGRAPHY LIST OF EVENTS, SESSIONS AND SPEAKERS

i) 1st Annual Forum for Green Economy Learning, Paris, 16-18 December 2015
Organized by: PAGE, OECD, GGKP, UNESCO-UNEVOC

Event/ format:	Organizer of event:	Title:	Speaker(s):	Title/ position of speaker:	Affiliation of speaker:	No. of participants:
Conference opening session	PAGE OECD GGKP UNESCO-UNEVOC	"1st annual forum for green economy learning opening session"	Kumi Kitamori Tim Kasten Amrei Horstbrink	Head of Green Growth and Global Relations Division Deputy Director, Division of Technology, Industry and Economics Specialist, Green Development and Climate Change Program	Environment Directorate, OECD UNEP UNITAR	Approx. 110
Conference plenary session	PAGE	"What is green economy learning and why do we need to invest in it?"	Kees van der Ree Nikhil Seth *5 panelists from PAGE partner countries*	Coordinator, Green Jobs Program Executive Director	ILO UNITAR	Approx. 110
Conference plenary session	UNEP PAGE GGKP	"Existing initiatives that support countries in promoting green economy education and training – what have we learned?"	Steven Stone (mod.) Angus Mackay Ben Simmons Shyamal Majumdar Nathalie Cliquot Jason Lee	Chief, Economy and Trade branch Manager, Green Development and Climate Change Program Head Head of International center for TVET Policy Analyst Principal Economist	UNEP UNITAR – on behalf of PAGE GGKP UNESCO-UNEVOC Local Economic and Employment Development Program, OECD Knowledge Solutions Division Representative, GGGI	Approx. 110
Conference plenary session	PAGE	"Strategies and policies to promote inclusive green economy learning – country case studies"	Borhene Chakroun *4 panelists from PAGE partner countries*	Chief, Section for Youth, Literacy and Skills Development	Division for Policies and Lifelong Learning Systems, UNESCO	Approx. 110
Break-out working groups						Approx. 20 in each group

Brown-bag seminar	GGKP	"Introduction to GGKP and the collaboration network"	Amanda McKee Benjamin Simmons *unknown* *unknown* *unknown*	Knowledge management specialist Head	GGKP GGKP GGGI OECD WB	Approx. 110
Conference plenary session		"Advancing a network of learning professionals and institutions"	Angus Mackay (mod.) *Brainstorming with audience*	Manager	Green Development and Climate Change Program, UNITAR	Approx. 110
Conference wrap-up closing session	PAGE OECD GGKP		Najma Mohamed Jacek Cukrowski	Policy Advisor Chief	Green Fund, Development Bank of Southern Africa UNIDO Institute for Capacity Development	Approx. 110

ii) 4th Annual Conference of the Green Growth Knowledge Platform, Jeju, South Korea, 6-7 September 2016

"Transforming Development through Inclusive Green Growth"

Organized by: GGKP and GGGI, partners: EfD Initiative, OECD, UNEP, WB

Part of the Global Green Growth Week 5-9 Sept. 2016.

Event/ format:	**Organizers of event:**	**Title:**	**Speaker(s):**	**Title/ position of speaker(s):**	**Affiliation of speaker(s):**	**No. of participants:**
Conference opening session	GGKP GGGI UNEP WB OECD	"GGGW Opening ceremony"	Yvo de Boer Christian Kastrop Dr. Ligia Noronha Dr. Marianne Fay	Director General Director of Policy Studies Director of DTIE[1] Chief Economist for Sustainable Development	GGGI OECD UNEP WB	1200
Plenary roundtable session	GGKP	"Understanding the challenges of inclusive green growth"	Prof. Paul Ekins Mohan Munasinghe Kevin Urama *Anonymized*	Director, deputy director and member[2] Founder and chairman Senior advisor to the president[3] Senior Associate	GGKP advisory committee (..) Munasinghe Institute For Development, Sri Lanka AfBD IIED	1000

[1] Director, Division of Technology, Industry and Economics, UNEP

[2] Professor of Resources and Environmental Policy and Director of the Institute for Sustainable Resources, University College London, and Deputy Director, United Kingdom Energy Research Centre and Member of the GGKP Advisory Committee

[3] Special advisor to the president on green and inclusive growth

Plenary roundtable session	GGGI OECD	"Can economic growth be inclusive and green?"	Mahua Acharya Fatima Denton George C. Varughese Simon Upton	Assistant Director-General[4] Director, African Climate Policy Center President Director, Environment Directory	GGGI UNECA Development Alternatives, India OECD	1000
Plenary roundtable session	GGKP	"The role of collaboration and knowledge in scaling inclusive green growth"	Ben Simmons Ligia Noronha[5] Gunnar Köhlin Lisbeth Jespersen Oliver Greenfield	Director Director Head of Secretariat Convenor	GGKP UNEP Environment for Development, Sweden Global Green Growth Forum (GGGF/ 3GF) Green Economy Coalition (GEC)	1000
Parallel session	GGKP	"Ensuring gender-balanced participation and empowerment"	Fatima Denton[6] (chair) Sarwat Chowdhury (discussant) *3 case studies presented by young academics/ policy researchers*	 Policy Specialist	UNICA UNDP	20
Keynote speech	GGKP		Mary Robinson	Former President of Ireland President	 Climate Justice	1000
Side event	GGKP NCE GGGI AfDB WB	"Delivering a green economic transforming in low-income African countries"	H.E. Dr. Shiferaw Teklemariam Hon. Kyeyune Haruna Kasolo Helen Mountford *Anonymized* Lars Andreas Lunde Naina Lal Kidwai Yvo de Boer	Minister[7] Minister of state[8] Program Director Senior Director for Climate Change State Secretary[9] Member Director General	Government of Ethiopia Government of Uganda New Climate Economy World Bank Government of Norway Global Commission for the Economy and Climate GGGI	30

[4] Assistant director general, Investment and Policy Solutions Division, GGGI
[5] See footnote 1
[6] See footnote 5
[7] Minister of Environment, Forestry and Climate Change
[8] Minister of State for Finance, Planning and Economic Development
[9] Ministry of Climate and Environment

Conference closing session	GGGI UNEP WB OECD	"Linking knowledge-sharing, research, and policy-making for inclusive green growth"	Dr. Carlo Carraro[10] Dr. Ligia Noronha[11] Marianne Fay[12] Kumi Kitamori[13] Orestes Anastasia[14] Edwin Muchapondwa[15]		GGKP advisory board UNEP WB OECD GGGI EfD	900

iii) Global Green Growth Summit, Jeju, South Korea, September 8 September 2016
"Green Finance barriers, successes and solutions"
Organized by GGGI. Part of the Global Green Growth Week 5-9 Sept. 2016.

Event/ format:	Organizers of event:	Title:	Speaker(s):	Title/ position of speaker(s):	Affiliation of speaker(s):	No. of participants:
Opening ceremony	GGGI		Susilo B. Yudhoyono Hwang Kyo-anh Yvo de Boer Erik Solheim	Former President of Indonesia Prime Minister of Korea Director General Executive Director	GGGI GGGI UNEP	1200
Plenary panel discussion	GGGI	"Is International Green Finance flowing to the countries and regions that need it?"	H.E. Abdoulaye Balde Karman Sekar Francois Martel Kaveh Zahedi Helen Mountford	Minister of Environment and Sust. Dev. Deputy Managing Director Secretary General Deputy Executive Secretary of Sust. Dev. Director of Economics	Government of Senegal State Bank of India Pacific Islands Dev. Forum Secret. UNESCAP World Resources Institute	400
Plenary panel discussion	GGGI	"How can we supply green finance	Rintaro Tamaki *Anonymized* Morten Jespersen	Deputy Secretary General Senior Director, Climate Change Under-secretary[17]	OECD World Bank Government of Denmark	400

[10] Professor, Universitá Ca´Foscari Venezia and co-chair of the GGKP advisory board
[11] See footnote 1
[12] Chief Economist, Sustainable Development, World
[13] Head of Green Growth and Global Relations Division, Environment Directorate, OECD
[14] Head of Knowledge Management, Global Green Growth Institute
[15] Professor at the University of Cape Town and Senior Research Fellow, Environment for Development
[17] Under- Secretary, Global Development and Cooperation, Ministry of Foreign Affairs, Denmark

		internationally in the future?	Erik Solheim Kevin Urama[16]	Executive Director	UNEP AfDB	
Plenary panel discussion	GGGI	"National green finance instruments increasing the ability of countries to access green finance"	Silvia Rojas H.E. Vincent Biruta Cesar Purisima Hon. Kyeyune Haruna H.E. Mr. Bambang Brodjonegoro	Acting General Director[18] Minister of Natural Resources Form. Secretary of Finance Minister of state[19] Minister of National Development Planning Agency	Environmental Bank Foundation (..) Government of Rwanda Republic of the Philippines Government of Uganda Government of Indonesia	400
Plenary panel discussion	GGGI	"Country experience of accessing finance for resilience"	Hon. Ham Li Tatiana Gallego-Lizon[20] Antoine Faye	Minister[21] Chief Resilience Officer	Vanatu Asian Development Bank (ADB) City of Dakar	200
Keynote speech	GGGI		Erik Solheim	Executive Director	UNEP	1000
Side event roundtable discussion	GGGI PAGE UNEP	"GGGI, PAGE and UNEP: Working together for country results"	Yvo de Boer Kees van der Ree Steven Stone Oyun Sanjaasuren Silvia Calderon Balázs Horváth Ernesto F.B. Alguiar Thani Al-Zeyoudi	Director Coordinator of Green Jobs Program Chief of the Economy and Trade Branch Member of Parliament Deputy-director[22] Director Environmental Specialist[23] Minister for Climate and Environment	GGGI ILO UNEP Government of Mongolia Government of Colombia UNDP Seoul Policy Centre Government of Peru Government of United Arab Emirates (UAE)	100
Side event seminar	AfDB	"Africa's New Deal on Energy and Implications of the COP21 Agreement"	Hon. Kyeyune Haruna Kasolo H.E. Dr. Shiferaw Teklemariam *Unknown* *Unknown*	Minister of State for Finance, Planning and Economic Development Ministry of Environment, Forestry and Climate Change *Unknown* *Unknown*	Government of Uganda Government of Ethiopia India AfDB	20

[16] See footnote 4
[18] Acting General Director FUNBAM and Biodiversity Sustainable Fund, Costa Rica
[19] Minister of State for Finance, Planning and Economic Development
[20] Director, Urban Development and Water Division Southeast Asia Regional Department, Asian Development Bank
[21] Minister of Climate Change Adaptation, Meteorology, Geo-Hazards, Environment, Energy, and Disaster Management
[22] Deputy-director for Sustainable Environmental Management, National Planning Department
[23] Environmental Specialist, Public Investments, Ministry of Finance and Economics

Closing session	GGGI	"Synthesis: Developing a Green Finance Action Agenda for 2017"	Yvo de Boer *With input and comments from audience*	Director	GGGI	1000

iv) The Annual Forum of the Southern Agricultural Growth Corridor of Tanzania (SAGCOT), Dar es Salaam + learning journey Songea/Iringa, Tanzania, 7-10 March 2017. Organized by: SAGCOT

Event/ format:	Organizers of event:	Title:	Speaker(s):	Title/ position of speaker(s):	Affiliation of speaker(s):	No. of participants:
Participatory research/ event ethnography	SAGCOT	SAGCOT annual forum learning journey: Songea/Iringa visiting outgrowers and investors			Participants including SAGCOT staff, SAGCOT board members, CEOs, Soya ni Pesa[24] staff, Silverlands[25] staff, Silverlands investors/ CEO, farmers	Approx. 30
Opening speech	SAGCOT		Andrew Temu[26]		SAGCOT ACT PASS (..)	Approx. 500
Opening speech	SAGCOT		Geoffrey Kirenga	CEO	SAGCOT	500
Plenary session	SAGCOT	"Looking to innovation in agriculture finance and	Jennifer Baarn John Kyaruzi	Deputy CEO Executive Director	SAGCOT SAGCOT CTF	500

[24] Soya ni Pesa is an outgrower farmers' company based in Songea. They produce soybeans for chicken feed to Silverlands Investments' farm, which is based in Iringa. See more information here: http://soyanipesaprojectintanzania.weebly.com/ (accessed 04.06.19).

[25] Silverlands is a company based in Iringa that produces poultry products. See more information here: https://www.silverlandstanzania.net/ (accessed 04.06.19)

[26] Associate professor, SUA; Member of the Board of Directors, TIC; Chairman of the Board of Trustees, Private Agriculture Sector Support Trust (PASS); Chairman of the Audit Committee, Board of Directors of the CRDB Microfinance Services Compani; Member of the Steering Committee, 'Linking Farmers to Markets' Initiative, FAO; Board member, SAGCOT board; Former board member, ACT; *unknown affiliation at* ProRustica; Board member, Africa Guarantee Fund; Board Member, Financial Sector Deepening Trust (FSDT)

		technology as means to catalyze new ways of organizing the farmers of the future"	Sean de Cleene[27] Fuad Abry Katja Gilbert Gloria Heche	Vice President *unknown* *unknown* *unknown*	AGRA ASAS Dairy NOSC[28] CARE/ WWF	
Plenary session	SAGCOT	"Aligning government engagements, agribusiness and farmer based organizations as co-creators or rural wealth through sustainable agricultural development"	Jennifer Baarn Nyemba Stanislaus Adam Stefan *Unknown* *Unknown* Alexandre Macedo Rafael Tsur	Deputy CEO *unknown* Private sector unit lead *Regional commissioner* *Regional commissioner* Managing Director Managing Director	SAGCOT MVIWATA USAID Iringa Njombe Yara Tz. Rafael group	500
Conference speech	SAGCOT		Hanne-Marie Kaarstad	Ambassador	Royal Norwegian Embassy of Tanzania	500
Conference speech	SAGCOT		Jeroen Verheul	Ambassador	Royal Dutch Embassy of Tanzania	500
Conference speech	SAGCOT		Sarah Bloom	Private Sector Development Advisor	DFID	500
Conference speech	SAGCOT		Janet Edeme	Agricultural Director of Rural Economy and Agriculture Development	African Union (AU)	500
Conference speech	SAGCOT		William Asiko	Executive Director	Grow Africa	500
Conference speech	SAGCOT		Wilhelmine Koning-Hoever	Chairman of the women's committee	European Farmer's Union	500

[27] Vice President of AGRA (former: Yara, current: WEF); former chair of WEF New Vision for Agriculture Project Board; former co-chair emeritus of Grow Africa; Special Advisor UN Office of the Special Representative of the Secretary-General on Food Security and Nutrition.
[28] Njombe Outgrowers Company

Break-out parallel session	SAGCOT	"Towards sustainable water management"	Simon Bell John Nakei With participating representatives from IUCN/ Sustain Africa, WWF and DFID	Board member[29] Social and Environmental specialist	SAGCOT board SAGCOT	Approx. 25
Plenary parallel sessions summar	SAGCOT					500
Wrap-up session	SAGCOT		Andrew Temu[30]		SAGCOT board	500
Closing session	SAGCOT		Neema Lugangira	Head of Policy	SAGCOT	500

v) Green Growth Innovation one-day seminar
Organized by: The Norwegian Business School (BI), Oslo, 11 May 2017

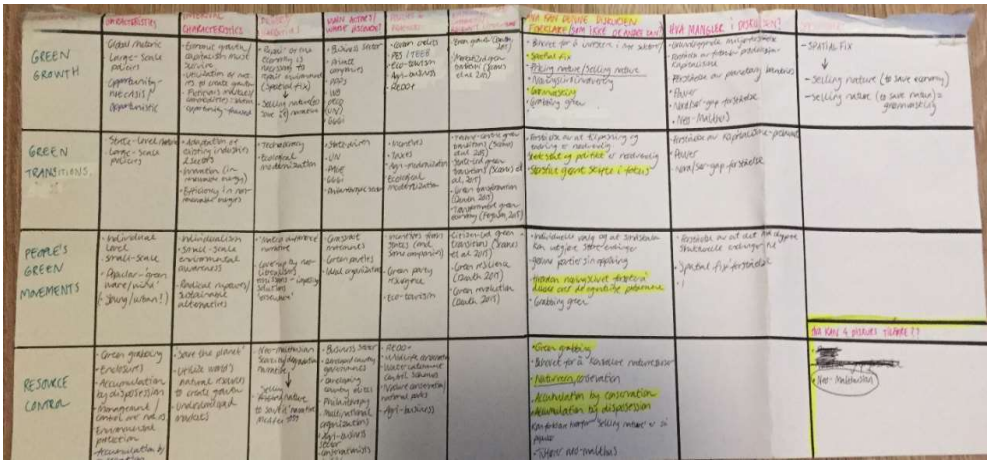
Event/ format:	Organizers of event:	Title:	Speaker(s):	Title/ position of speaker(s):	Affiliation of speaker(s):	No. of participants:
Opening speech, introductions and panel debate	BI	"Oslo - The Leading Green Innovation City?"	Raymond Johansen	Governing Mayor	Oslo	Approx. 400
Introduction to panel debate	BI	"Smart green growth" innovation for a prosperous society	Carlota Perez	Professor	London School of Economics	400
Introduction to panel debate	BI	"Radical Innovation from The 'Drawdown' Project"	Paul Hawken	Author		400

[29] He is also the founder and chairman of Armillary Investment Fund.
[30] See footnote 24

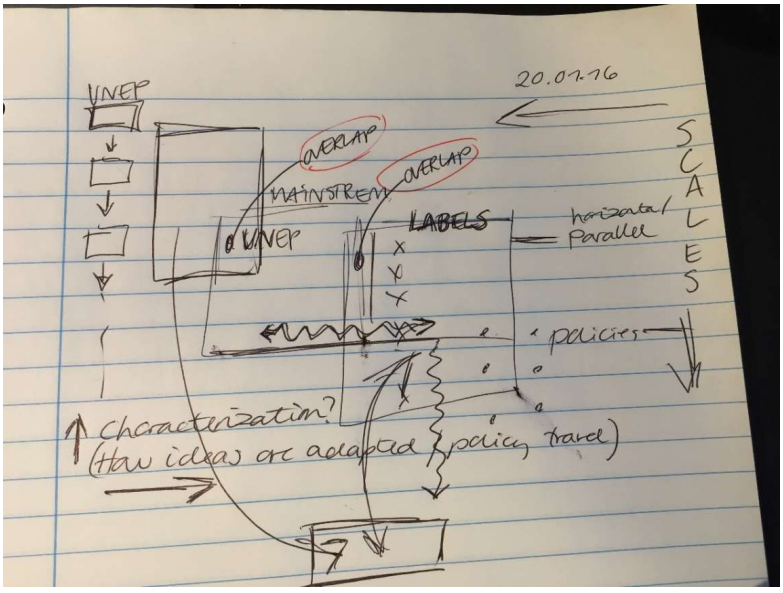
Introduction to panel debate	BI	"Institutional Innovation for Securing Green Growth"	Arild Vatn	Professor	Norwegian University of Life Sciences (NMBU)	
Plenary session	BI	"More for Less? - Norwegian Smart solutions"	*CEOs of various 'green'/ smart-solutions companies*[31]		Norwegian private sector companies	400
Plenary session	BI	"Green Growth as Innovation Policy"	Jørgen Randers *Representatives from Norwegian innovation*[32]	Professor	The Norwegian Business School (BI)	400
Closing session	BI		Per Espen Stoknes	Professor	BI	400

[31] See full list here: https://www.bi.no/om-bi/kalenderaktiviteter/2017/mai/green-growth-innovation/ (accessed 03.06.19)
[32] See full list here: https://www.bi.no/om-bi/kalenderaktiviteter/2017/mai/green-growth-innovation/ (accessed 03.06.19)

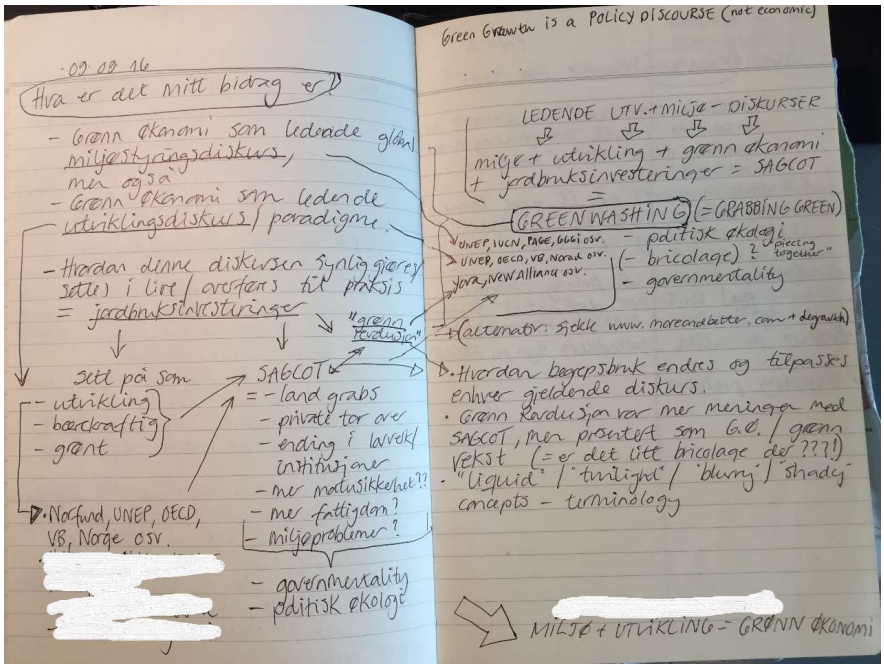
ANNEX 3: EXTRACTS FROM ANALYSIS METHOD: MEMOS



Example 1: Memo of discourse analysis process: tentative classification of discourses based on identification and analysis of regularities.

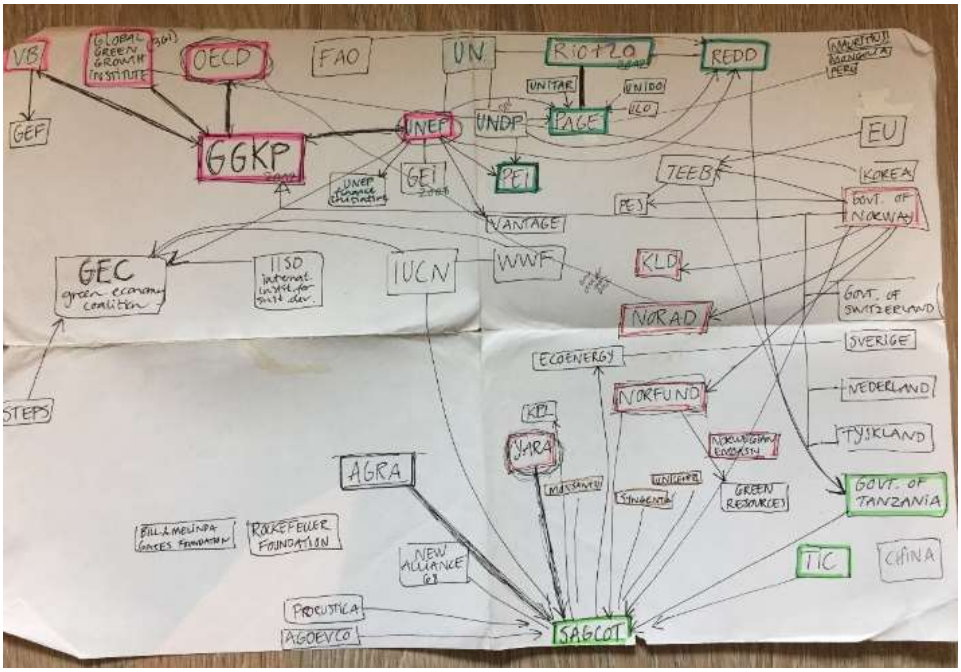


Example 2: Memo of institutional mapping + conceptual/ theoretical framing (Memo book 1)



Example 3: Memo of conceptual brainstorming/ analysis (Memo book 1)

Example 4: "Wordle" created from the SAGCOT Greenprint (SAGCOT, 2013) as an assistance to the method of identifying regularities in discourse analysis (tool: www.wordle.net)



Example 5: Memo of brainstorming/ institutional mapping (Memo book 2)

ANNEX 4: APPROVED ERRATA

Side	Line	Original text	Corrected text
ii	27	2.3.1.The	2.3.1. The
iii	5	4.3.3.Validity	4.3.3. Validity
iii	9	5. SUMMARY OF INDIVIDUAL PAPERS	5. SUMMARY OF PAPERS
iv	2	discusses the policies, discourses	discusses policies, discourses
vi	3	den internasjonal dagsordenen	den internasjonale dagsordenen
vi	17	naturressurser, og hvordan	naturressurser, samt i hvordan
vi	35	De teoretiske tilnærmingene	Disse teoretiske tilnærmingene
vii	26	Disse er for det første	Disse er, for det første
xi	7	official development Assistance	official development assistance
xi	12-14	NESH - NEPAD -	NEPAD – NESH -
xi	21	Reducing Emissions from Degradation and Deforestation	Reducing Emissions from Deforestation and Forest Degradation
xii	7-8	USAID – URT -	URT – USAID -
xii	9	World Commission on the Environment and Development	World Commission on Environment and Development
xiii	5	Map of SAGCOT	Map of SAGCOT area
1	24-25	framework, or rather several, sometimes contrasting, policy frameworks, and	framework – or rather several, sometimes contrasting, policy frameworks – and
2	9	World Commission for Environment and Development	World Commission on Environment and Development
3	15	Reducing Emissions from Degradation and Deforestation	Reducing Emissions from Deforestation and Forest Degradation
5	21	in general there has been	in general, there has been
8	22	“triple”	“triply”
15	13	must be seen in the	must be seen in light of the
19	29-30	strategies. Bailey and Caprotti (2014, p. 1799)	strategies (Bailey & Caprotti, 2014, p. 1799).
23	19	this the dominant	this is the dominant
24	14	(or were not already)	(or were already not)
24		for development actors focusing towards the rural, agriculture sector for poverty alleviation efforts was seen as a “low-hanging fruit.”	for development actors, focusing efforts towards the rural, agriculture sector for poverty alleviation was seen as a “low-hanging fruit.”
26	26	Green Revolution. (Gaud, 1968)	Green Revolution (Gaud, 1968).

26	33	technology. (Harris, 1988, p. 229)	technology (Harris, 1988, p. 229).
36	28	(SAGCOT 2011,	(SAGCOT, 2011
37	Footnote 23	The other corridor	Another corridor
41	26	, such as the for example the	, such as for example the
45	4	Foucault 1977	Foucault, 1977
47	1	discourses legitimizes	discourses legitimize
48	23	there are to hand	there are at hand
49	8	space. (Cleaver, 2012, p. 34)	space (Cleaver, 2012, p. 34).
49	4-8	*Quote text size was 12*	*Quote text size changed to 11*
71	14	The participatory observation	This participatory observation
73	27	(or rather several fields)	(or rather several "fields")
73	28	intense	intensive
75	28	during the closed sessions	during closed sessions
78	20	entities analyzed implies pointing	entities analyzed, implies pointing
83	Footnote 37	Ii is important	It is important
86	8	achieved by through	achieved through
88	25	to my this research	to this research
90	13	and the green revolution	and the new green revolution
90	15	developed part of the world	developing part of the world
94	6	politics	policies
96	1	mechanism guide	mechanisms that guide
97	13	shared	share
102	1	implemented and how	implemented, and how
102	3	their study objectives	the study objectives
102	16	The argument	This argument
103	1	(Dean 2010	(Dean, 2010
104	10	overall a	an overall
104	21	global North	Global North
105	12-13	"surplus nature" and capital	"capital deficits" and "surplus nature"
105	29	potential. (Adesina, 2017)	potential (Adesina, 2017).
106	26	defined by	defined as
109	25	They are	These are
112	27	"climate-smart'	'climate-smart'
112	39	*109*(1): 1–17.	*109*(1), 1–17.
113	47	(pp: 107-137).	(pp. 107-137).
115	23	Our vision: Prosperity for all within one planet limits.	*Our vision: Prosperity for all within one planet limits.*

Annex 1	**Table line**		
2	4	head of SAGCOT assessment	head of DFID SAGCOT assessment
3	3	(now: AGRA)	(later AGRA)
3	17	Permanent Secretary	Permanent Secretary Member of
3	19	Agricultural Council of Tanzania	Agricultural Council of Tanzania (ACT)
3	20	President's Delivery Bureau Prime Minister's Office Ministry of Agriculture Ministry of Finance	President's Delivery Bureau Prime Minister's Office Ministry of Agriculture Ministry of Finance (all: Government of Tanzania)
4	3		*unknown*
Annex 2			
6	Footnote 26	Former board menber	Former board member
Annex 3			
2	Ex. 4	(tool: www.worlde.net)	(tool: www.wordle.net)

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