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Decentralization and development: can local governments contribute to sustainable development through inclusive agribusiness?

Case studies of the mango sector in Makueni County, Kenya and the French beans sector in Nandi County, Kenya

Etienne van Duuren – 3975576
e.c.vanduuren@students.uu.nl

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Summary

For decades, ethnic minorities in Kenya have expressed their discontent about the highly centralized government system, as they felt excluded from political power. As a response, extensive decentralization measures were implemented in 2013, granting county governments a significant amount of power. Simultaneously, inclusive agribusiness has taken off in several Kenyan counties as a method to spur sustainable development, leaving an opportunity for county governments to involve themselves in the development of their locality. Although it is increasingly recognized that local governments should play a major role in achieving sustainable development, their potential for contributing to sustainable development through inclusive agribusiness is barely known. Therefore, this research analyzes how Kenyan county governments contribute to sustainable development through inclusive agribusiness.

In order to analyze these contributions, qualitative data is gathered in two Kenyan counties: Makueni and Nandi. These data are analyzed using an adapted version of the Imperatives for Sustainable Development (ISD)-model, which identifies three moral imperatives for sustainable development: satisfying human needs, ensuring social equity and respecting environmental limits. By complementing a strong theoretical foundation with quantitative indicators, this model links theory to practice and is, therefore, highly suitable as an analytical lens for research. This research is considered as a test case for the utility of the ISD-model as an analytical framework. Furthermore, the analysis through the model is accompanied by a critical discourse analysis in order to create knowledge on contextual factors that influence the contribution of local governments to sustainable development. This research, therefore, uses a rare combination of a positivist and an interpretivist approach, thereby advocating for the incorporation of interpretivist approaches into mainstream international development research.

The findings of this research include a variety of ways in which local governments can contribute to sustainable development. Firstly, by stimulating high-value crops and by providing trainings and agricultural inputs, local governments may alleviate poverty and increase food security, thereby contributing to satisfying human needs. Secondly, local governments may create jobs through inclusive agribusiness for women and youth and improve public participation through a bottom-up decision-making mechanism, thereby contributing to ensuring social equity. Thirdly, local governments can contribute to respecting environmental limits by assessing environmental impacts of inclusive agribusiness projects, stimulating the production of drought-resistant crops for inclusive agribusiness, providing drilling machines for irrigation and providing environmental trainings. However, whether local governments can contribute to sustainable development is shaped by its context. Crucial contextual factors include the institutional quality of the national government system, the local government's discourse on sustainable development, instigated by its governor's notion of the topic, and the agro-ecological characteristics of the locality. Consequently, this research concludes that local governments have great potential for contributing to SD through inclusive agribusiness, but whether decentralization can instigate successful contributions to SD is highly dependent on both the national and the local context. Furthermore, it is concluded that the ideal role for local governments in inclusive agribusiness models is best to be determined per case, as contextual factors determine what role a local government is likely to be able to play. This research, therefore, feeds into the academic literature on decentralization in the Global South and inclusive agribusiness models for sustainable development, while simultaneously testing the utility of the ISD-model as an analytical lens and the use of interpretivist approaches in combination with positivist approaches. By doing so, this research fosters theoretical and methodological innovation in the field of sustainable development, while bridging academic research with societal practices.

Contents

List of abbreviations

ATC	Agricultural Training Centre
CoG	Council of County Governors
CSF	Cold Storage Facility
FAO	Food and Agriculture Organization of the United Nations
IBEC	Intergovernmental Budget and Economic Council
IGRTC	Intergovernmental Relations Technical Committee
ISD	Imperatives for Sustainable Development
ISDH	Imperatives for Sustainable Development in Horticulture
LCR	Local-Central Relations
LREB	Lake Region Economic Bloc
MFPP	Makueni Fruit Processing Plant
MPI	Multidimensional Poverty Index
NCBF	National Capacity Building Framework
NEMA	National Environmental Management Authority
NGO	Non-Governmental Organisation
PPP	Public-Private Partnership
PRI	The UN Principles for Responsible Investment in Agriculture and Food Systems
RQ	Research Question
SD	Sustainable Development
SQ	Sub-Question
TA	Transition Authority

List of figures and tables

1. Introduction

1.1. Background

A large share of the debate on the development of the Global South has been centered on its governance challenges. This is particularly true for Africa. In a considerable part of the continent, colonialism has left a legacy of highly centralized systems of government. In an attempt to foster national unity among the many ethnic groups and to encourage rapid socio-economic development after independence, most African countries turned to a centralization of state power. In spite of this attempt, centralization of power undermined development lookouts (Kanyinga, 2016). Under most patrimonial states, ethnic groups which are numerically large tended to mobilize for electoral competition, which led the majority of development resources to be allocated to these groups and the regions they reside in (Barkan & Chege, 1989). As marginalized groups in several countries expressed their discontent over the patrimonialist modes of governance, demands for decentralization rose (Kanyinga, 2016). Over the last two decades, this has led a number of African countries to implement decentralization measures. Of all the decentralization projects on the continent, the World Bank has called the one of Kenya, in which a vast amount of functions has been transferred to the 47 newly-formed county governments (Sheely, 2015; Kanyinga, 2016; Cheeseman et. al., 2016), "one of the most rapid and ambitious on the planet" (World Bank, 2018).

At the same time, foreign agribusiness investors have found their way to African farmlands in large numbers over the last decades (Schoneveld, 2016). Such foreign interventions are often associated with the phenomenon of 'land grab', causing negative social and environmental impacts (Cotula, 2009). Be that as it may, foreign agribusiness investments come in a wide array of forms and are by no means constrained to property investments (Poulton & Macartney, 2012). With its potential of bringing in the necessary capital, technologies and employment to the continent, foreign agribusiness has even widely been regarded with optimism by African governments. (Cotula, 2012). For that reason, African governments have lately tried to attract foreign investors to their country as a strategy to enhance the sustainable development of their region by including smallholder farmers in the investment (Guidí, 2011; Kolk, 2016). This form of foreign agribusiness is often referred to as inclusive agribusiness (Guidí, 2011; Scheyvens et. al., 2016). This trend has, for instance, led to the expansion of Dutch inclusive agribusiness in Kenya, notably in the horticulture sector (Van Westen et. al., 2013). In Kenya, horticulture is a particularly promising sector through which sustainable development can be enhanced. As a comparatively large share of horticultural crops in Kenya is produced for the export market, horticultural crops fetch high returns and could play a key role in reducing poverty. Additionally, the horticultural crops which are not grown for export have the potential to improve nutrition, diversifying the generally protein- and carbohydrate-rich diet that is characteristic of Kenya and most other African countries (Keatinge et. al., 2018). Crucial to the sustainable development impacts of inclusive agribusiness models in horticulture is the appropriateness of the governance arrangements around these investments, in which the public sector plays a key role (Van Westen & Zoomers, 2016).

The academic literature principally focuses on the role national governments play in the governance of inclusive agribusiness. Findings on this topic include, for example, that democratic regimes reduce risks for foreign investors (Jensen, 2008a). Literature on the role of government-to-government support, agreements between the national government of the sending country and the national government of the receiving country, is also extensive (e.g. Jensen, 2008b; Lu et. al., 2014; Pinto & Pinto, 2008). While the role of national governments has been widely researched, the role of local governments in inclusive agribusiness models is vastly underrepresented in the academic literature. This is striking, as local governments may have great potential for the attraction, implementation and coordination of inclusive agribusiness, especially in horticulture (Rodriguez-Pose & Cols, 2017; Wang et. al., 2013).

In addition to that, it is increasingly recognized that local governments should play a major role in achieving sustainable development (Graute, 2016, Geissel, 2009; ICLEI, 2012). Since the mid to late 1990s, attention has been directed to the local causes of issues related to sustainable development. Not only are sustainable development challenges often rooted locally, it is also increasingly recognized that the local level is often the most adequate level to address these challenges, as it is the "level closest to the people" (Wittmayer et. al., 2016, p. 940). In that respect, the Local Agenda 21 was put forward at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil, in 1992. Local Agenda 21 consists of a set of objectives that work towards achieving sustainable development. The objectives can be voluntary adopted by local governments (Lafferty & Eckerberg, 2013). The initiative was reinforced in 2002, when Local Action 21 provided a more action-oriented approach in order to advance the implementation of the agenda by local governments (Baker et. al., 2012). As the role of local governments in achieving sustainable development is increasingly recognized, a substantial amount of intellectual and financial resources have been granted to decentralization projects over the last years in an attempt to foster sustainable development through decentralization (Beisheim et. al., 2018). Kenya's recently implemented large-scale decentralization project serves as an example for this. However, the current academic contribution that relates to local governments' role in sustainable development consists of only a handful of case studies (e.g. Larson, 2002; Visinescu & Maracineanu, 2012). On top of that, none of these studies focus on the context of inclusive agribusiness in horticulture, leaving a significant gap in literature.

1.2. Research aim

There is a vast lack of knowledge on the role of local governments in supporting sustainable development, especially through inclusive agribusiness in horticulture. In order to fill this gap in literature, this research explicitly focuses on the role of local governments in a particular context, after which the findings are generalized to other contexts. Because of its recent decentralization measures and the expansion of inclusive agribusiness in its horticulture sector, Kenya has been identified as a particularly apt case study. In order to analyze the contributions of Kenyan local governments to sustainable development, a unique analytical model is used, based on the Imperatives for Sustainable Development (ISD) model by Holden et. al. (2017). As the indicators in the ISD-model are designed for broad analytical purposes, the model has been adapted to suit the context of this research. The adapted model has been named the Imperatives for Sustainable Development in Horticulture (ISDH) model. The ISDH-model consists of indicators based on the UN Principles for Responsible Investment in Agriculture and Food Systems and indicators based on issues that are distinctive for Kenyan horticulture. The latter two are added to make the model appropriate to the context of this research. By analyzing the impact of local government interventions through the ISD-model, suggestions can be made on how local governments can contribute to sustainable development and on what role local governments can play in inclusive agribusiness models. Simultaneously, this research is considered as a test case for the utility of the ISD-model as an analytical framework, as the results of this test feed back into the theoretical foundation and the value of the ISD-model for analysis. Furthermore, the research complements the analysis through this model with a critical discourse analysis (CDA), thus combining a positivist and an interpretivist research method. This is done in order to create knowledge on contextual factors that influence the contribution of local governments to SD, which is necessary to generalize findings to other contexts. By doing so, this research investigates whether the combination of positivist and interpretivist methods can create contextual knowledge. As empirical findings in international development research tend to be highly context-bound (Smith, 2005), identifying methods that can create contextual understanding are critical. In short, this research has theoretical and methodological implications for sustainable development, while also providing practical recommendations regarding local government interventions and inclusive agribusiness models for sustainable development. In this way, the research aims to foster theoretical and methodological innovation in the field of sustainable development, while bridging academic research with societal practices.

2. Theoretical framework

For this research is concerned with the role of local governments and Kenya has only recently undergone a decentralization process, it is necessary to conceptualize decentralization. Furthermore, the national government's delegation of tasks to the county government is a major element in this research, local-central relations (LCR) are discussed in paragraph 2.2, after which the involvement of local governments in inclusive agribusiness will be conceptualized in paragraph 2.3. Moreover, sustainable development is a central concept in this research requiring a theoretical underpinning. Paragraph 2.4 and 2.5 will elaborate on that respectively by discussing how different scholars have approached this concept and how the concept is operationalized in this research. Concludingly, the conceptual model is presented, revealing the relationships between the concepts defined in this chapter.

2.1. Decentralization, deconcentration and devolution

Over the last decades, numerous developing countries have reformed their governments by means of decentralization. Riedl & Dickovick (2014) define decentralization as:

"Reforms that include the "transfer of power and resources from national governments to subnational elected governments"

(p. 323)

According to Poteete & Ribot (2011), decentralization moves decision-making from the national to the local level in order to improve accountability, efficiency, participation and responsiveness. This should help decentralization meet its objectives. Common objectives of decentralization reforms are "enabling more efficient service delivery, advancing democratic reform and promoting economic development and poverty reduction" (Eaton et. al., 2011, p. 13). Development partners generally provide considerable support to this type of public sector reform. However, the official policy goals, supported by the development partners, and the goals of political actors are found to lack correspondence in many cases. Therefore, the objectives of the reforms mentioned before are frequently not met (Eaton et. al., 2011). In addition to this, Cabral (2011) notes that the success of decentralization largely depends on contextual details and policy design, in particular the relations of local elites with central governments. She adds that in Africa, decentralization has essentially been used as a tool by the central government to tighten relationships with local elites, which is confirmed by Caldeira et. al. (2010). The success of decentralization is further limited by fiscal constraints and institutional weaknesses (Cabral, 2011), resulting in a lack of power in decision-making for local governments.

Nonetheless, the power local governments experience in decision-making strongly differs per country. Riedl & Dickovick (2014) argue that decentralization, although being challenging to measure due to its multiple dimensions, is best understood as a combined measure of political, fiscal and administrative decentralization. The degree of decentralization can be measured by the robustness of decentralization. A distinction is made between *weak* and *robust* decentralization, in which robust decentralization consists of at least the following elements:

"1. Subnational elections (political decentralization).
2. *Ten percent or more of national revenues made available to SNGs (fiscal decentralization).*
3. *Creation of a subnational civil service (administrative decentralization)."*

(Riedl & Dickovick, 2014, p. 324).

This means that robustly decentralized countries hold elections, exceed the minimum fiscal threshold and have at least partially implemented a subnational civil service. By incorporating decentralization's different dimensions, the robustness of decentralization essentially measures the amount of power transferred from the national to the local level.

Another way decentralization is defined in academic literature is by a distinction between deconcentration and devolution. Deconcentration refers to:

"The transfer of administrative functions to subordinate units of government."

(Cabral, 2011, p. 2)

Hence, deconcentration is similar to the administrative decentralization element in the definition of Riedl & Dickovick (2014) and can be considered as weak decentralization. Unlike deconcentration, devolution is a more extensive form of decentralization, being at the other end of the decentralization spectrum. Devolution refers to:

"The transfer of governance … responsibilities to sub-national levels that are largely outside the direct control of the central government, often through an electoral process which makes local governments directly accountable to local people"

(Cabral, 2011, p. 2)

This definition implies that devolution includes political decentralization and most likely also fiscal decentralization, as in the definition of Riedl & Dickovick (2014), and is therefore similar to robust decentralization. In Africa, devolution is challenging, as the continent has a history of centralized but weak states, in combination with limited revenue from local sources. Yet, Kenya is one of the few African countries which has succeeded in devolving most of its functions, since the establishment of 47 county governments in 2013 (Riedl & Dickovick, 2014).

2.2. Institutional and political quality and local-central relations

Another part of the literature concerning decentralized governments focuses on institutional and political quality. Although institutional quality and political quality are often treated separately, some authors have pointed towards the interrelations between the two topics (Bartlett et. al., 2017; Efobi, 2015). Therefore, institutional and political quality is treated as one concept in this research and defined as:

"The extent to which a decentralized government system functions effectively from an institutional and a political point of view."

In the context of decentralized governments, political and institutional quality is mainly determined by the relations between local governments and national governments, or local-central relations (LCR). The role of local governments in these relations is found to be complex and ambiguous. On the one hand, local governments feel responsible for the local population. Therefore, they will act competitively towards other localities in a country by negotiation with the national government for a larger share of resources (Andriesse, 2009). In extreme cases, it is even possible for a local government to oppose a national government. On the other hand, local governments are often merely an instrument of the national government, as the national government often creates regional borders and appoints local politicians. Thus, while being part of the national government apparatus, local governments can also disapprove of the national government, hence the ambiguity of its role (Flint & Taylor, 2014).

Because of its highly complex nature, the literature on LCR often focuses on the identification of challenges. The first challenge in the context of Africa is that ethnicity has often been a decisive factor

in structuring local-central relations (Dwyer & Drakakis-Smith, 1996). For example, a central government which is nervous about transferring power to ethnic political rivals might divide its local institutions into smaller, weaker units. This could lead to underperformance of regions and ultimately to instability and conflict. Ethno-local politics have heavily influenced LCR in many African countries, among which Kenya (Crook, 2003). The violent ethnic conflict at the December 2007 elections, leading to thorough decentralization measures, is a case in point. The second challenge related to LCR is the rise of informally arranged LCR. These informal relations can be enabling, thus increasing the effectiveness of LCR, but they can also be disabling. In Africa, informally arranged LCR often takes the form of national politicians favoring their home localities, instead of reducing inequalities between localities. This is an example of informal institutions disabling LCR. The third challenge which is present in many African countries is local elite capture, which refers to the grabbing of a part of the available resources by local elites. This is often a consequence of flaws in decentralization programmes (Johnson, 2001). Elite capture is often present when informal institutions disable LCR and when there is a lack of financial transparency (Andriesse, 2009). In summary, several challenges relating to local-central relations have had a negative effect on the institutional and political quality of African governments.

2.3. Local governments and inclusive agribusiness

Agribusiness investments refer to investments that cover the entire spectrum of activities along an agricultural value chain. The concept of agribusiness was defined by Davis & Goldberg as early as 1957:

"*The sum total of all operations involved in the manufacture and distribution of farm supplies; production operations on the farm; and the storage, processing, and distribution of farm commodities and items made from them.*"

(p. 2)

Agribusiness investments in developing countries come in a wide range of forms. Although these investments have often been associated with land grab (Cotula, 2009), some investors have opted for inclusive business models, aspiring to contribute to sustainable development in the recipient country by inclusive . This form of agribusiness investments is referred to in the academic literature as inclusive agribusiness (Guidi, 2011; Hahn, 2012). These type of investments commonly try to balance profit maximization and social and environmental considerations through including smallholder farmers in the investment and minimizing their environmental impact. Hence, inclusive agribusiness is an explicitly normative way to do business (Liversage, 2010).

Whereas the role of national governments is widely discussed in the academic literature, the role of local governments in agribusiness investments is underrepresented. However, local governments do have great potential for contributing to inclusive agribusiness, especially in horticulture (Rodriguez-Pose & Cols, 2017; Wang et. al., 2013). For example, local governments may try to attract agribusiness investments by acquiring land to be rented out to investors (German et. al., 2013) or by developing infrastructure (Asiedu, 2002; Donaubauer et. al., 2016). In addition, according to Van der Haar & Baltissen (2016), local governments may play a role in the implementation of investments. An example of this is the safeguarding of land for smallholder farmers, to protect them from an investor aiming to buy land which is used by smallholder farmers. Lastly, local governments might play a role in the coordination of stakeholders involved in an investment. This is especially true when it comes to agribusiness investments that take place through public-private partnerships (PPPs), as the higher intensity of collaboration in these types of investments requires a well-functioning coordinating mechanism (Poulton & Macartney, 2012). An example of a potential role for local governments in the coordination of inclusive agribusienss is to provide regulation in order to ensure competition and enforce contracts (Narrod et. al., 2009). Concludingly, local governments play diverse roles related to the attraction, implementation and coordination of agribusiness investments.

2.4. The concept of Sustainable Development (SD)

In the 1980s, the notion emerged that the rise of capitalism in many parts of the world, accompanied by rapid economic growth after the Second World War, has led to an increasing global pressure on natural resources. To address this issue, the UN General Assembly created the World Commission on Environment and Development (WCED) in 1983, headed by Norway's Prime Minister Gro Harlem Brundtland. In 1987, the commission presented a report called Our Common Future, offering an agenda that advocated economic growth, using policies that do not harm the environment. The concept of sustainable development emerged:

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

(World Commission on Environment and Development, 1987, p. 43)

Until then, the environment had largely been viewed as external to humanity. Contrastingly, Our Common Future recognizes that humans are dependent on the environment and that socio-economic and environmental issues are becoming increasingly interwoven (Hopwood et. al., 2005). The report attempts to bridge these issues by leaving a certain ambiguity, simultaneously stressing social, economic and environmental priorities. The lack of a clear and concise theoretical underpinning of the concept has led to a multitude of definitions for sustainable development, threatening the value of the concept (Wackernagel & Rees, 1996; Hopwood et. al., 2005; Holden et. al., 2014). Sustainable development has been increasingly presented as "a pathway to all that is good and desirable in society" (Holden et. al., 2014; p. 130). A long list of elements has been associated with the concept of sustainable development, including seemingly far-fetched ones such as crime rates, teacher capabilities and obesity rates (Banister, 2008; Holden & Linnerud, 2007). The UN-established Sustainable Development Goals (SDGs) provide another example. With 17 SDGs, 169 targets and 303 indicators, none of which have been prioritized, there is a risk of achieving secondary goals without achieving the primary ones (Holden et. al., 2017; Stafford-Smith, 2014; Stokstad, 2015). Concludingly, the concept is increasingly at risk of becoming meaningless and irrelevant (Hopwood et. al., 2005; Holden et. al., 2017). This is perhaps best illustrated by an attendee's note on the concept at the 1992 Earth Summit in Rio de Janeiro, Brazil:

"Anything on which John Major, George Bush and Fidel Castro all agree can't really mean anything, can it?"

Whitelegg (1997, p. 101)

The lack of a theoretical underpinning for the concept also has implications for most assessment tools for sustainable development. Ever since the launch of Our Common Future (1987), numerous assessment tools for sustainable development have been introduced. Most of these tools do not have a sufficiently developed theoretical framework (Hák et. al., 2016). According to Holden et. al. (2014), no tool with a strong theoretical foundation exists to guide politicians in solving challenges at global or local levels. The most common example of an assessment tool based on the insights provided by Our Common Future, but lacking a sufficient theoretical underpinning, is the three-pillar model. In an attempt to address the shortcomings of the three-pillar model and return the meaning to sustainable development, Holden et. al. (2017) created the Imperatives of Sustainable Development (ISD)-model. The following paragraphs will discuss the two models in more detail, before explaining how the ISD-model has been adapted to create an analytical framework that suits the context of this research.

2.4.1. The three-pillar model

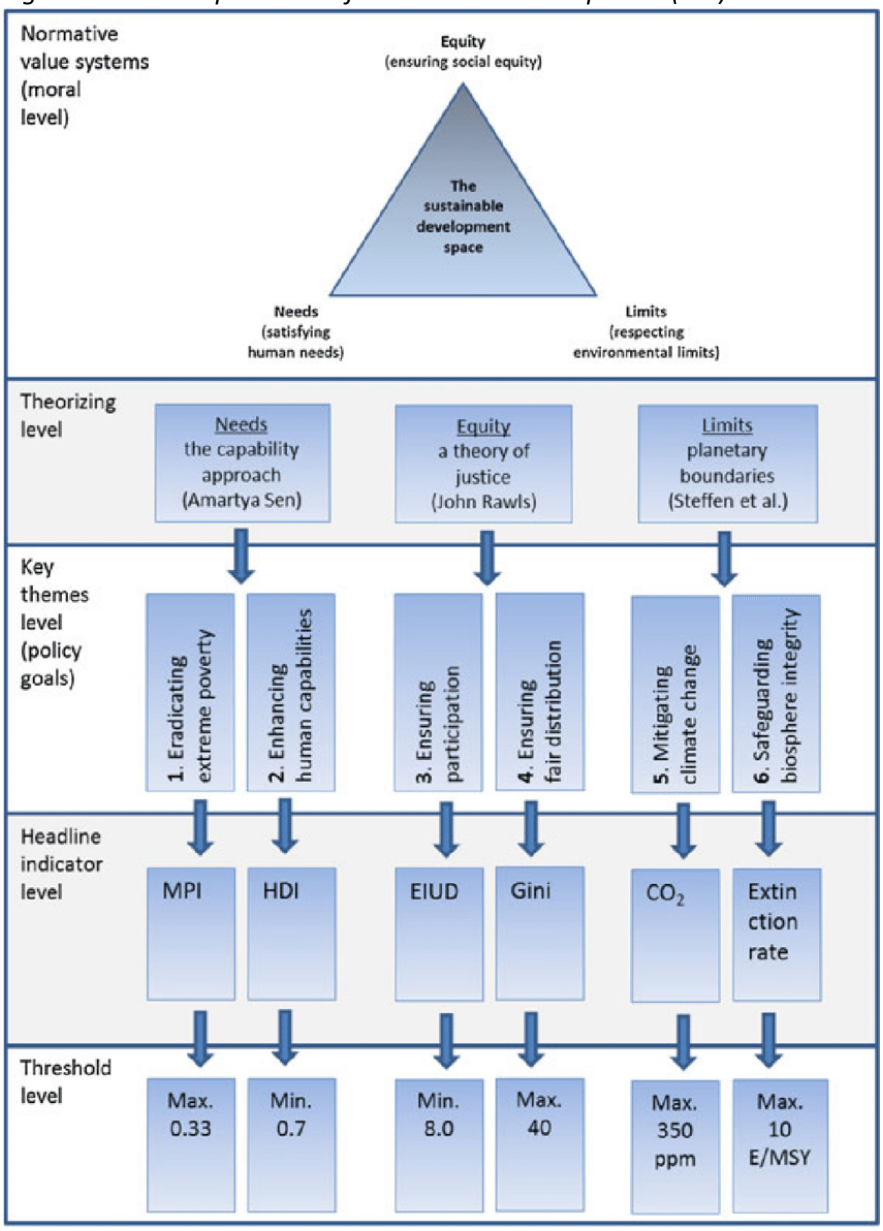
Arguably the most popular tool for assessing sustainable development is the three-pillar model. This model, also referred to as the 3P-model (People, Planet, Profit) or the triple bottom line, intends to

balance social, economic and environmental targets. It is based on Our Common Future, which simultaneously indicates economy, society and the environment as priority dimensions. According to the model, sustainable development is achieved when the three dimensions are in balance. The model has been of major influence to the Sustainable Development Goals (SDGs), as these also attempt to balance the three dimensions by equally prioritizing the goals (Stafford-Smith, 2014; Stokstad, 2015). Despite its popularity as an analytical lens, the three-pillar model has been criticized for its balancing nature, as it allows trade-offs between the different pillars. For instance, according to the three-pillar model, a certain degree of pollution is acceptable as long as this is compensated with an increase in economic growth. The model accepts these kind of trade-offs as long as the dimensions are in balance. According to critics, the trade-offs indicate that the model implies a conceptual disunity between environment and the humanity. The model neglects the fact that humanity depends on the environment (Giddings et. al., 2002; Hopwood et. al., 2005). Other critics of the model contend that, unlike the model suggests, economic growth is not a primary dimension of sustainable development. While economic growth may provide, for example, technological solutions to mitigate greenhouse gases and adapt to climate change, it may also increase these emissions or lead to an overexploitation of resources. This means that economic growth is neither inherently sustainable, nor unsustainable. It is therefore not a primary dimension of sustainable development, as the critics say (Common, 1996; Daly, 1995; Jacobs, 1995; Holden et. al., 2017;).

2.4.2. The Imperatives of Sustainable Development (ISD)-model

As a response to the criticism on the popular three-pillar model of sustainable development, Holden et. al. (2017) have designed the Imperatives of Sustainable Development (ISD)-model, shown in figure 2.1. The model is designed as a policy guidance tool for global as well as local levels. In an effort to overcome the drawbacks of the three-pillar model, Holden et. al. (2017) have based the model on a set of constraints on human behavior, which result in a sustainable development space that excludes trade-offs between its dimensions. The constraints have been dubbed 'moral imperatives' and include constraints on economic behavior. On top of that, Holden et. al. (2017) have removed the economic dimension from their model. The model identifies major sustainable development themes, quantitative indicators and thresholds to make the imperatives measurable. Three moral imperatives are suggested: human needs, social equity and environmental limits. The imperatives each contain two key themes which are accompanied by one quantitative indicator. The ISD-model will be used as a basis for the analytical framework in this research, for three reasons. Firstly, the key themes are based on policy documents and are also defined by Holden et. al. (2017) as policy goals. This indicates the political focus of the model. Its political focus makes the model appropriate for this study, as it is after all a political actor that is analyzed: the Kenyan local governments. Secondly, by complementing the moral level of the model with a theorizing level, a policy level and an indicator level, the model links theory to practice and is therefore, next to a guiding tool for policy purposes, highly suitable as an analytical lens for research. Thirdly, issues concerning responsible business are explicitly normative in nature, as explained in paragraph 2.3. As the ISD-model also has a strong normative foundation, it fits the topic of study. For these reasons, the ISD-model will be used as a basis for the analytical model in paragraph 2.5, rather than the three-pillar model.

Figure 2.1: The Imperatives of Sustainable Development (ISD)-model.



Source: Holden et. al. (2017).

2.5. Towards an analytical model

In the Imperatives for Sustainable Development (ISD) Framework, Holden adds quantitative indicators to the key themes he uses. Although these indicators are quantitative, the issues these indicators address are equally relevant when using a qualitative approach. These issues will therefore be deducted from the indicators in order to operationalize the key themes and design an adapted, qualitative version of the ISD-model. However, in order to make the operationalization of the key themes more appropriate to a context of foreign agribusiness, Holden's indicators are complemented by using the FAO (Food and Agriculture Organization of the United Nations) Principles for Responsible Agricultural Investment (PRI) (Food and Agriculture Organization of the United Nations, 2014). These are the principles the FAO has formulated with the aim of providing guidelines for responsible investments in agriculture, thus relevant for the horticulture sector. Several of Holden's indicators comprise the contents of these principles already, but the FAO's PRI are described more profound and are more geared towards the horticulture sector. Paragraph 2.5.1. will discuss the FAO PRI in greater detail. Moreover, some important issues specifically relating to horticulture in Kenya will be outlined

in paragraph 2.5.2. These issues will also be involved in the creation of a new model. Lastly, the context of local governments will be taken into account when creating indicators for the new model. Hence, the concepts to be measured are operationalized using a combination of inputs from Holden's indicators, the FAO's PRI, the issues relating to Kenyan horticulture explicitly and the local government context. The operationalization results in the creation of a new model: the Imperatives for Sustainable Development in Horticulture (ISDH) model (see figure 2.2.). This model is used as a framework for analysis in this research.

2.5.1. UN Principles for Responsible Investment in Agriculture and Food Systems (PRI)

In order to "promote responsible investment in agriculture and food systems" (FAO, 2010, p. 5), the FAO has developed the UN Principles for Responsible Investment in Agriculture and Food Systems, also referred to as 'the UN Principles', 'the Principles' or 'the PRI'. This is a set of voluntary, non-binding guidelines to be adopted by all stakeholders involved in investments in agriculture and food systems. The guidelines are specifically geared towards supporting food security and nutrition. By providing these guidelines, the FAO seeks to address the key dimensions of responsible agribusiness investments as well as create a framework for action (FAO, 2010). The PRI are considered as relevant input for the ISDH-model, for its focus on the responsibility aspect of agricultural investments corresponds to the topic of this research and the Principles are widely considered as the leading guiding framework on responsible agricultural investments (Gond & Piani, 2013; Sandberg et. al., 2009). The PRI are shown in table 2.1.

Table 2.1.: The UN Principles for Responsible Investment in Agriculture and Food Systems.

Principle 1	Contribute to food security and nutrition.
Principle 2	Contribute to sustainable and inclusive economic development and the eradication of poverty.
Principle 3	Foster gender equality and women's empowerment.
Principle 4	Engage and empower youth.
Principle 5	Respect tenure of land, fisheries, and forests, and access to water.
Principle 6	Conserve and sustainably manage natural resources, increase resilience, and reduce disaster risks.
Principle 7	Respect cultural heritage and traditional knowledge, and support diversity and innovation.
Principle 8	Promote safe and healthy agriculture and food systems.
Principle 9	Incorporate inclusive and transparent governance structures, processes, and grievance mechanisms.
Principle 10	Assess and address impacts and promote accountability.

Source: Food and Agriculture Organization of the United Nations, 2014.

2.5.2. Sustainable development through horticulture in developing countries

As mentioned earlier, the horticulture sector in developing countries has a significant role to play in achieving sustainable development. This role is twofold. On the one hand, an increase in horticultural production might contribute to food and nutrition security by enriching the carbohydrate- and protein-rich diet that is characteristic of many developing countries, especially in Africa. This development would fit within the current academic literature on food and nutrition security, which has increasingly considered the aspect of dietary diversity instead of solely the quantitative supply of food (Luckett et. al., 2015; M'Kaibi et. al., 2017; Warren et. al., 2015). The nutrients provided by fruits and vegetables in particular can contribute to a more balanced diet. On the other hand, an increasing portion of horticultural production in developing countries is being grown for export, due to the rapidly rising international demand, mainly from the US and Europe (Reardon, 2015). Exports of horticultural products from Africa and Asia more than quadrupled over the past two decades, while those from Latin America more than tripled (Van den Broeck & Maertens, 2016). Kenya is one of the countries that has successfully linked with European buyers over the latest years, making the horticulture sector in Kenya predominantly export-oriented (Tallontire et. al., 2014). Growing horticultural exports have the potential to play a major role in tackling poverty, as export crops fetch significantly higher returns than crops produced for the domestic market.

The rapid increase in horticultural exports has triggered intensive debates in academic research on their implications for sustainable development. While some authors have identified positive effects, other authors have stressed the negative implications. These include the exclusion of smallholder farmers in certain export value chains (Dolan & Humphrey, 2000; Reardon et. al. 2009) and the exploitation of farmers and workers in other value chains (Barrientos et. al., 2016; Schuster & Maertens, 2016). Another challenge particularly relevant to a developing country context is the exclusion of women and youth in horticultural export chains, as the majority of land in most countries is dominated by the head of the household, which is generally the oldest man in the household (Ulrich, 2014; Johnson & Shaw, 2014). Moreover, there has been concern over poor food safety in developing countries, resulting in a large burden of disease (Unnevehr, 2015; Otsuki et. al., 2001). On top of that, the increase in horticultural exports has environmental implications. Due to the rapidly increasing international demand and the growing domestic population in most developing countries, intensification of production in the horticulture sector is considered a necessity. However, when this intensification is carried out in an unbalanced manner, the ecosystem will be severely damaged (Petersen & Snapp, 2015). Climate change, environmental pollution, biodiversity loss, soil erosion and water depletion are all factors that threaten the environmental sustainability of horticulture (Hiwale, 2015). The overexploitation of water and land resources is a problem which has been particularly stressed (Schwarz et. al., 2015; Garnett et. al., 2013). Sustainable intensification is necessary to respond to the growing population and demand from Western countries, while not irreversibly damaging the ecosystem. In Kenya, this has been pursued, for instance, by providing trainings for farmers on agronomic practices, but also on environmental issues such as using agricultural waste as animal feed, integrated pest management, home irrigation and sustainable land management (Kurgat et. al., 2018). Also, to limit the impacts on the environment, local governments in Kenya use Environmental Impact Assessments (EIAs) for new projects (Ioppolo et. al., 2016). Having said that, it should be noted that not all of these practices are widely adopted across the country (Pretty, 2011).

Furthermore, a growing domestic demand for horticultural crops in developing countries, in order to improve food and nutrition security, makes an intensification of production even more urgent. Besides stressing the importance of dietary diversity, the academic literature on food and nutrition security has also emphasized an income approach to food security. This approach is based on the notion that a higher income would lead to increased food and nutrition security, for a higher income would allow the purchase of more and higher quality food (Bellon et. al., 2016). The academic literature provides empirical evidence for a positive relationship between income and food and nutrition security

(Babatunde & Qaim, 2010; Kennedy & Peters, 1992), but the relationship between horticultural exports and food and nutrition security lacks evidence (Van den Broeck & Maertens, 2016). Nevertheless, in the context of horticulture in developing countries, this means that not only horticultural crops for own consumption, but also horticultural cash crops at least have the potential to enhance food security. In pursuit of achieving food and nutrition security through horticulture, it is necessary to improve farmer incomes, create employment and diversify production. A potential strategy to achieve this is by reducing post-harvest losses and creating value addition using new technologies (Hiwale, 2015; Unnevehr, 2015). A Kenyan example of improving food and nutrition security in horticulture is intercropping. Long-term fruit trees are intercropped with different kinds of short-term crops, like French beans and maize. In this way, production is guaranteed throughout the year and can contribute to food security, whether directly through consumption or indirectly through monetary returns on cash crops (Ouma & Jeruto, 2010). Finally, the intensification of production has made food health and safety a major concern in horticulture in the Global South, even more so when taking into account Kenyan export crops intended for markets where food safety standards are higher (Oloo, 2010). Local governments, when eligible to do so, may contribute to relieving this issue through the implementation or enforcement of food safety regulations (Ifenkwe, 2012; Tran et. al., 2013).

2.5.3. The Imperatives for Sustainable Development in Horticulture (ISDH)-model

Now that the ISD-model, the FAO's PRI and the challenges in achieving SD through horticulture in a developing country context have been outlined, the Imperatives for Sustainable Development in Horticulture (ISDH)-model can be created by integrating the inputs and taking into account the local government context. In the spirit of the ISD-model, the ISDH-model uses concrete indicators, while keeping the number of indicators to a minimum. This is done in order to capture the moral imperatives of the concept of sustainable development as by Holden et. al. (2017), without getting lost in an endless list of elements otherwise associated with sustainable development. Lastly, it must be noted that, because of its exploratory nature, this research does not intend to analyze whether constraints have been exceeded. Rather, it uses the ISD-model to identify to what extent county governments contribute to SD. Subsequently, output indicators are created that intend to capture the scale of county government contributions to SD. The next paragraph will profoundly clarify how key themes of the ISDH-model are operationalized.

In accordance with the ISD-model, there are three moral imperatives that require quantitative indicators. The first of these imperatives, satisfying human needs, consists of two key themes or policy goals: eradicating extreme poverty and enhancing human capabilities. Holden et. al. (2007) use the Multidimensional Poverty Index (MPI) as an indicator for the first of these themes. This indicator is composed of 10 sub-indicators, the majority of them relating to living standards, such as electricity, housing and sanitation. As it would be unworkable to include all 10 indicators in the ISDH-model, a compromise is made by solely including the concept of income. After all, income is the main resource to potentially improve livings standards (Vogel, 2003). In order to include the local government context, the indicator must measure to what extent county government interventions lead to a rise in returns. As this research only allows for considering the rise in returns on one particular crop per case study, the indicator for the theme eradicating extreme poverty is dubbed *Percentage rise in returns for farmers' produce through interventions*. Furthermore, in order to account for the multidimensionality of poverty, food and nutrition security is measured in this research. Besides being an element in the MPI, food and nutrition security is also recognized in paragraph 2.5.2 as an important issue in horticulture in the Global South. Also, the second UN principle also urges investors to contribute to food and nutrition security. For these reasons, food and nutrition security is deemed a crucial topic both within the theme eradicating extreme poverty and within the context of this research, and is included in the ISDH-model accordingly. Only crops that are produced for the domestic market or used for own consumption can contribute to food and nutrition security directly. As the crops targeted in this research are fruits and vegetables, they are particularly promising in contributing

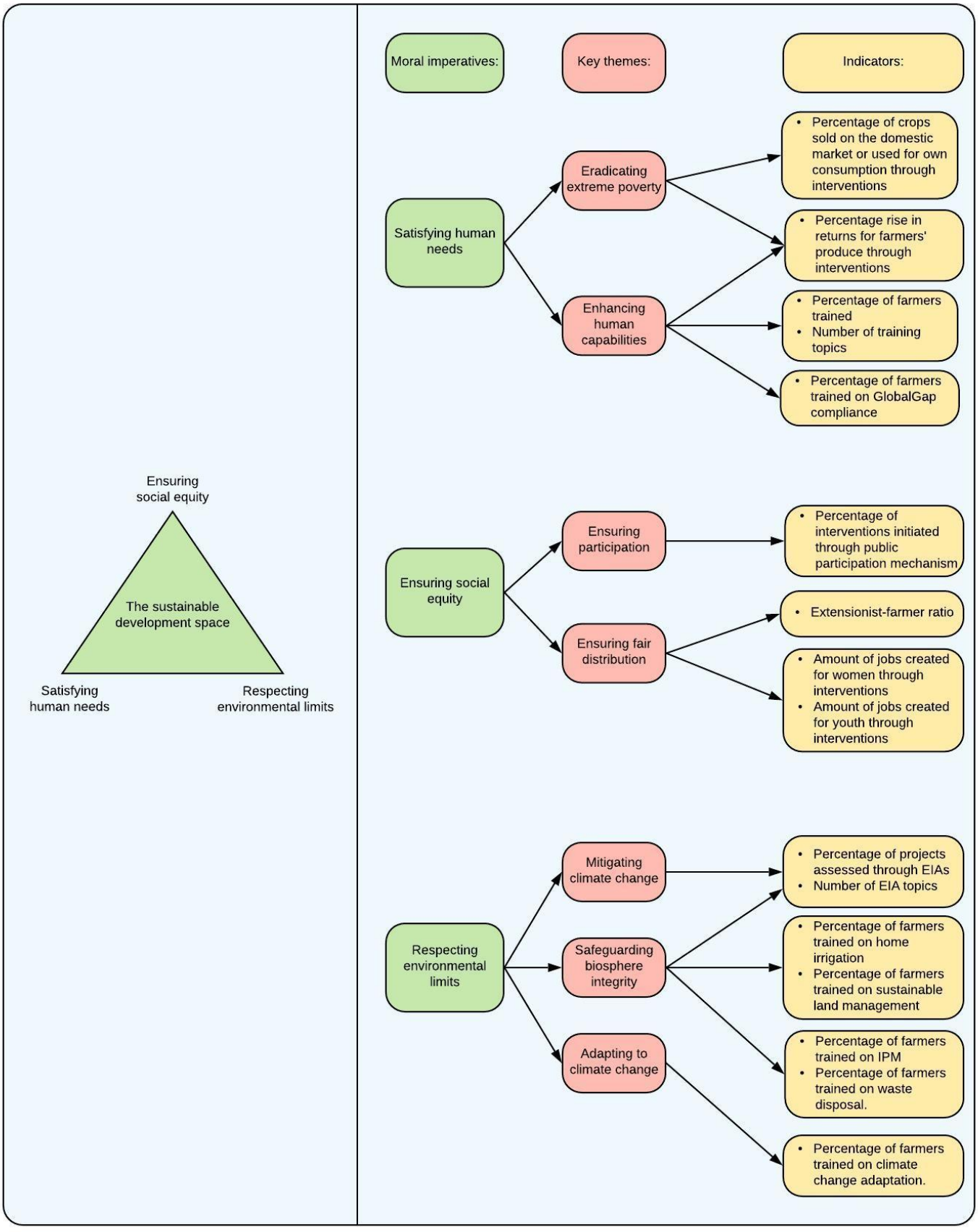
to a more nutritious diet. Accordingly, the indicator *Percentage of crops sold on the domestic market or used for own consumption through interventions* is added to the model. The theme of enhancing human capabilities is indicated by Holden et. al. (2011) using the Human Development Index, which consists of a health, education and income indicator. In relation to education, providing trainings for farmers has been mentioned in paragraph 2.5.2 as a way to pursue sustainable development by local governments. Consequently, the *Percentage of farmers trained* is added as an indicator to the model. On top of that, in order to account for the quality of trainings provided, the variety of training topics needs to be included in the model. Because variety is not quantitatively measurable directly, it is approximated by the *Number of training topics.* Moreover, as described in paragraph 2.5.2., implementing and enforcing food safety regulation and environmental trainings are strategies used by Kenyan local governments to pursue SD. In the context of Kenyan horticulture, the latter two predominantly intend to make farmers comply with GlobalGap standards, as compliance with these standards is often necessary in order to export to the European Union. Consequently, the *Percentage of farmers trained on GlobalGap compliance* is included as an indicator for the theme enhancing human capabilities. *Percentage rise in returns for produce through interventions* will be used as an indicator for this theme too, for income is not only the main resource for improving living standards, it is also a tool for enhancing human capabilities (Anand & Sen, 2010).

The second moral imperative, ensuring social equity, contains two themes as well: ensuring participation and ensuring fair distribution. Holden et. al. (2017) define ensuring participation as the state of democracy. In order to make this indicator more suitable for the local level, it should be geared towards local public participation mechanisms. The indicator *Percentage of interventions initiated through public participation mechanism* is added to the ISDH-model subsequently. Moving on, in the ISD-model the GINI coefficient is used as an indicator for ensuring fair distribution. This indicator is based on income inequality. In the context of local governments, however, income inequality mainly takes place through exclusion. Exclusion, on its turn, mainly takes place through a limited reach of county government extension services (David et. al., 2014). Such services are given by Kenyan local governments through the use of extensionists. These are government officers located at the lowest units of government, in order to reach farmers countywide. The number of extensionists relative to the number of farmers in a county is crucial when it comes to inclusivity, as it indicates the reach of the county government for extension services. For this reason, the *extensionist-farmer ratio* is added as an indicator for ensuring fair distribution. Also relevant to the theme of ensuring fair distribution is the second UN Principle, which speaks of “creating new jobs and fostering decent work through improved working conditions” (Food and Agriculture Organization of the United Nations, 2014, p. 12). Furthermore, the third UN Principle concerns women’s empowerment. In this principle, the FAO stresses the importance of gender issues, especially concerning women’s employment. As mentioned in paragraph 2.5.2, exclusion of youth is also a challenge relevant to horticulture in a developing country context. The fourth UN Principle points out the importance of youth issues as well. To capture these topics in the ISDH-model, *Amount of jobs created for women through interventions* and *Amount of jobs created for youth through interventions* are added as indicators for ensuring fair distribution.

The last moral imperative of the ISD-model is respecting environmental limits. This imperative consists of the themes mitigating climate change and safeguarding biosphere integrity. Mitigating climate change is defined by Holden et. al. (2017) by limiting the CO2 concentration in the atmosphere. As for the horticulture sector in a developing country context, environmental pollution has been indicated as a major threat in paragraph 2.4. However, it is hardly measurable in what quantities local governments are responsible for actual pollution mitigation. The strategy local governments in Kenya use for mitigating pollution is the execution of Environmental Impact Assessments (EIAs), as mentioned in paragraph 2.5.2. Accordingly, the *Percentage of projects assessed through EIAs* is used as an indicator for the theme of mitigating climate change. Furthermore, in order to account for the quality of EIAs, the variety of EIAs topics needs to be included. Again, as variety is not directly measurable in quantities, it is approximated by the *Number of EIA topics.* In the ISD-model, safeguarding biosphere integrity is

indicated by the extinction rate, a measure used for purposes of biodiversity protection. In the context of this research, the impact Kenyan farmers may have on biodiversity is through inadequate pest management that harm insects and through agricultural wastes that can harm aquatic, plant and animal life. Local governments may tackle this through trainings on Integrated Pest Management (IPM) and waste disposal. The *Percentage of farmers trained on IPM* and the *Percentage of farmers trained on waste disposal* are therefore added as indicators. Also, the depletion of land and water resources have been mentioned in paragraph 2.5.2 as specific challenges for the horticulture sector in developing countries, which can be tackled by trainings on home irrigation techniques and sustainable land management respectively. Accordingly, *Percentage of farmers trained on home irrigation* and *Percentage of farmers trained on sustainable land management* are added as indicators for safeguarding biosphere integrity. Lastly, climate change is mentioned in paragraph 2.5.2 as a major threat for the horticulture sector in Kenya and the provision of climate change adaptation trainings is identified as a way of tackling this. Even though this topic does not fit within the key themes of the ISD-model or its theoretical foundation, it is highly relevant in the context of this research. Therefore, *Adapting to climate change* is added as a theme to the model, which is indicated accordingly by the *Percentage of farmers trained on climate change adaptation.* Figure 2.2 illustrates how the model is constituted.

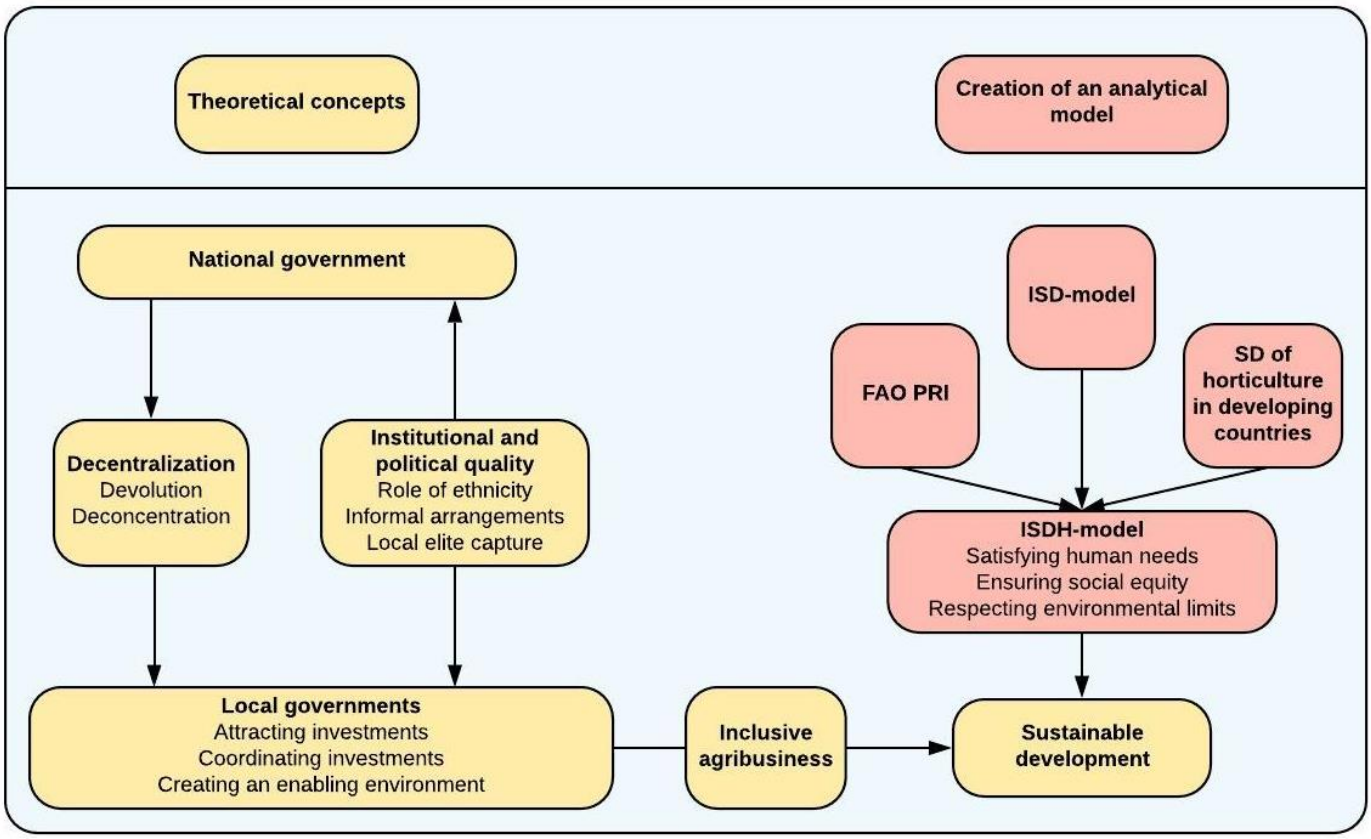
Figure 2.2: The Imperatives of Sustainable Development in Horticulture (ISDH)-model.



2.6. Conceptual model

Figure 2.3 shows the conceptual model, which demonstrates how the various concepts described in this chapter are interrelated. The yellow segment of the conceptual model presents the relationships between the theoretical concepts and their connection to the ISDH-model. The creation of the latter is presented in the red segment. The yellow segment reveals that decentralization and institutional and political quality are manifestations of the relationship between the national government and local governments. On their turn, local governments intend to contribute to sustainable development through inclusive agribusiness. To analyze their contribution to sustainable development, the ISDH-model is used as a framework for analysis. The concepts in this model are operationalized by using input from the ISD-model, the UN Principles and literature on how SD is achieved in Kenyan horticulture. The conceptual model is used as a theoretical embedding for the issues this research aims to tackle.

Figure 2.3: The conceptual model.



3. Research Design

Whereas chapter 2 presented the theoretical framework for this study, this chapter elaborates on how the research is designed. This includes the research questions, as well as the methodological choices made and a reflection on these choices. Regarding the methodological choices made, not only the methods of data collection are addressed in this chapter, but also the choices made regarding the selection of case studies, sampling, the selection of interview types and data analysis. A section reflecting on the methodology follows. Finally, the research design is visually presented in paragraph 4.6, in the form a research framework.

3.1. Research questions

Following the gap in literature, the aim of this research is to explore how local governments in the Global South can contribute to sustainable development through inclusive agribusiness, using two Kenyan county governments as a case study. This leads to the following research question:

Research question: How can local governments in the Global South contribute to sustainable development through inclusive agribusiness, regarding human needs, social equity and respecting environmental limits?

The research question is then divided into several sub-questions. The sub-questions are presented underneath, followed by an elaboration on each sub-question.

Sub-question 1: What is the institutional and political quality of the Kenyan government system?

- *How is the Kenyan government system institutionally structured?*
- *What are the institutional and political successes of the Kenyan government system?*
- *What are the institutional and political challenges of the Kenyan government system?*

Sub-question 2: What is the mandate of Kenyan county governments concerning inclusive agribusiness in horticulture?

- *What tasks are assigned to Kenyan county governments concerning inclusive agribusiness in horticulture?*
- *What responsibilities do other stakeholders have concerning inclusive agribusiness in horticulture?*
- *How is the coordination of responsibilities concerning inclusive agribusiness in horticulture institutionally structured?*

Sub-question 3: What is the performance of selected Kenyan county governments on their mandate concerning inclusive agribusiness in horticulture?

- *What are the agro-ecological characteristics of selected Kenyan counties?*
- *What are the challenges and inclusive agribusiness investments in the selected horticultural sub-sectors of the counties?*
- *What are the strengths and weaknesses of selected Kenyan county governments concerning the attraction of inclusive agribusiness?*
- *What are the strengths and weaknesses of selected Kenyan county governments concerning the coordination of stakeholders in inclusive agribusiness?*
- *What are the strengths and weaknesses of selected Kenyan county governments concerning the creation of an enabling environment for inclusive agribusiness?*

Sub-question 4: How do selected Kenyan county governments contribute to sustainable development through inclusive agribusiness in horticulture?

- *How do selected Kenyan county governments contribute to satisfying human needs through inclusive agribusiness in horticulture?*
- *How do selected Kenyan county governments contribute to ensuring social equity through inclusive agribusiness in horticulture?*

- *How do selected Kenyan county governments contribute to respecting environmental limits through inclusive agribusiness in horticulture?*

Sub-question 5: What contextual factors influence the contributions of selected Kenyan county governments to sustainable development?

- *How do institutional and political quality influence the contribution of selected Kenyan county governments to sustainable development?*
- *How do agro-ecological characteristics influence the contribution of selected Kenyan county governments to sustainable development?*
- *What discourses on sustainable development can be identified among selected Kenyan county governments?*
- *How do discourses influence the contribution of selected Kenyan county governments to sustainable development?*

in order to analyze local government contributions to SD, it is first necessary to introduce the governmental context of Kenya by identifying the institutional structure of the Kenyan government system and explore its institutional and political challenges, as the latter might influence the functioning of county governments in their tasks. Sub-question 1, therefore, aims to analyze the institutional and political quality. Institutional and political quality, in this regard, is defined as the extent to which the decentralized Kenyan government system functions effectively from an institutional and a political point of view, as described in section 2.2. Sub-question 2 is answered by identifying the tasks assigned to the Kenyan county governments with regard to inclusive agribusiness in horticulture. This sub-question is therefore descriptive. Afterwards, an investigation takes place of what responsibilities the Kenyan county governments have, what responsibilities the other actors have and the institutional structures for coordination of responsibilities. In this way, the responsibilities of Kenyan county governments in relation to the responsibilities of other actors will be clarified. While the mandate of county governments concerning inclusive agribusiness is identified in sub-question 2, Sub-question 3, also descriptive in nature, addresses the performance of county governments on their mandate. To be able to investigate this performance, it is first necessary to identify the agro-ecological characteristics, major challenges and inclusive agribusiness investments in the selected horticultural sub-sectors in the counties, as a way of introducing the local context of the case study areas. Afterwards, the performance of the county governments is investigated by identifying the strengths and weaknesses of county governments in inclusive agribusiness. This concerns the strengths and weaknesses on several aspects: the attraction of inclusive agribusiness, the coordination of stakeholders involved and the creation of an enabling environment. These have been indicated in paragraph 2.3 as the major aspects of inclusive agribusiness in which local governments potentially play a role. Whereas sub-questions 2 and 3 are descriptive, sub-question 4 is an analytical question. It explores the contribution of county governments to SD through inclusive agribusiness. The theoretical lens used for answering this sub-question is the Imperatives for Sustainable Development Framework. In accordance with the framework, the contributions are analyzed in terms of satisfying human needs, ensuring social equity and respecting environmental limits. Subsequently, in sub-question 5, variations in the contributions to SD between the two county governments are explained by exploring the influence of contextual factors. Firstly, the influence of the contextual factors earlier analyzed in this research, institutional and political quality (analyzed in sub-question 1) and agro-ecological characteristics (analyzed in sub-question 3), is explored. Secondly, as county governments' understanding of sustainable development may result in varying contributions to SD, discourses on SD among the selected county governments are identified. Once these are identified, the way in which these discourses influence the contribution of county governments to SD is examined. By identifying contextual factors that explain local variations, a more reliable generalization of the results to other contexts is allowed for, in order to answer the main research question adequately.

3.2. Methodology

Studies on inclusive agribusiness in developing countries are often quantitative, focusing on the quantitative effects of the investment. Although inclusive agribusiness and its effects are known to be very complex, the field lacks in-depth qualitative analyses, especially concerning the role of local governments (Murakami & Otsuka, 2017, Banson et. al., 2015; Amanor & Chichava, 2016). This research will provide a preliminary insight in the problem, attempting to develop new theory inductively. Such an approach is often referred to as grounded theory (Birks & Mills, 2015; Mikkelsen, 2005; Morse, 2010). In grounded theory, there must be evidence of a certain degree of theoretical density or depth for a resulting theory to be presented (Birks & Mills, 2015; Charmaz, 2006). In order to create sufficient theoretical density and to address the literature gap, this study provides an in-depth, information-rich qualitative analysis. Moreover, as the role of local governments has been underrepresented in academic research, an exploratory approach is deemed appropriate.

Furthermore, the analysis will take place through a comparison of two case studies. Case study analysis allows for an "up-close or otherwise in-depth understanding of a small number of cases, set in their real-world contexts" (Yin, 2011, p. 3). It is therefore deemed a suitable method, consistent with the intention of this research to obtain in-depth information in a particular context. The selection of cases for this research is justified in paragraph 4.3. By analyzing two case studies, parts of the knowledge created may be context-specific. Nevertheless, the research does attempt to derive generalized theory from these case studies, whilst being aware that attentiveness to the context is required when generalizing findings. This is accomplished through an innovative research design. By applying empirical methods in conjunction with critical discourse analysis (CDA), a combination of positivist and interpretivist approaches is opted for. Positivist approaches are founded on the view that truth and reality are free and independent of their observer, while interpretivists reject this view and pursue a subjective understanding of social phenomena. The approaches have often been treated as opposing paradigms and are rarely used simultaneously in qualitative research (Aliyu et. al., 2014). However, several authors have suggested that they may not be fundamentally at odds (Clarke, 2009; Lin, 1998; Roth & Mehta, 2002), "but simply require different analytical lenses for the same data" (Roth & Mehta, 2002, p. 132). In this way, the two approaches can be complementary (Lin, 1998; Roth & Mehta, 2002). While a positivist approach focuses on identifying causal relationships, interpretivist approaches might reveal the causal mechanisms behind those relationships by providing contextual information (Lin, 1998). In other words, a positive approach allows for 'explanation', while an interpretivist approach creates 'understanding' (Clarke, 2009). Incorporating both approaches in a research design is especially appropriate in comparative case study research, as Lin explains:

"The case study allows the researcher to see the phenomenon of interest within its context – to trace out and recreate the mechanisms that connect events or relationships – but the inclusion of several case studies in one project also forces the researcher to be more rigorous about defining specific relationships, provides the researcher with a ready-made collection of alternative explanations, and keeps the definition of terms from being so situation-specific that parallels to other situations are lost."
(1998, p. 176)

Therefore, with its qualitative comparative case study design, this research lends itself perfectly for a combination of positivist and interpretivist approaches. Although the primary aim of the research is still to create generalized theory, complementing the methodology with an interpretivist approach allows for contextual understanding, which is essential when generalizing findings (Lin, 1998). In this way, an extra layer of theoretical density, which a grounded theory approach requires (Birks & Mills, 2015), is created.

3.3. Case studies

Cases of two sectors in different counties are analyzed, focusing on specific agribusiness investments in that sector. In an attempt to maximize the identification of both local government contributions to SD and contextual factors that influence these, two case studies with diverging characteristics were selected. The first case study is the mango sector in Makueni county. In this sector, the county government has been involved in the establishment of a mango processing plant. The involvement of the Makueni government concerns the creation of an enabling environment for the project as well as the management of the plant itself (Daily Nation, 2018). Because of the prominent role of the Makueni government in the management of the plant, this investment is an example of a public-private partnership with a strong role for the public sector. The second case to be analyzed is the French beans sector in Nandi county, in which a cold storage facility for French beans has been established. In this case, the local government has mainly been involved in creating an enabling environment for the investment and by providing land, whereas private company Meru Greens is concerned with the implementation of the project (County Government of Nandi, 2018). The second case, on that account, is an investment in which the county government only plays a facilitating role. Hence, the Nandi government and the Makueni government play diverging, but key roles in the inclusive agribusiness investments in their counties. On top of that, Makueni county is situated in low-lying, semi-arid Eastern Kenya, while Nandi county is located in the wetter highlands of Western Kenya. Concludingly, the two counties have diverging characteristics in terms of their agro-ecological profile and in terms of their role in inclusive agribusiness investments. The two case studies are, therefore, deemed particularly relevant for comparison and analysis.

3.4. Data collection and sampling

The types of data collection consist of primary data on the one hand, including expert interviews, stakeholder interviews, focus groups and field observations. On the other hand, secondary data is used, in the form of policy documents and academic literature. Interviewing represents the core method of data collection in this research. A complete list of respondents is shown in Appendix I. In order to select respondents, purposive sampling is done, which means that respondents are selected on the basis of the groups the research addresses (Barrat et. al., 2015). This means that sampling does not take place randomly, but strategically, to ensure that the respondents are relevant to the topic of research (Bryman, 2012; Gentles et. al., 2015; Morse, 2010). In this way, a wide variety of actor groups are included in the research, to account for different perspectives. Purposive sampling is extensively used in grounded theory studies, in order to select information-rich cases related to the topic of research (Birks & Mills, 2015; Morse, 2010). As this research intends to provide an information-rich, qualitative analysis, purposive sampling is deemed an appropriate technique. Subsequently, the first and second sub-question of this research will be tackled through interviews with national government officials and county government officials, complemented by analysis of policy documents. For answering the first sub-question, academic literature will be used too, as several studies on the institutional and political quality of the Kenyan government system have been done in the recent past. In order to answer the third sub-question, interviews with county government officials and other relevant stakeholders are done, including NGOs active in Makueni and Nandi and national government officials. This will be complemented by expert interviews and an analysis of policy documents at county level. To answer the fourth and fifth sub-question, the interviews with experts, county government officials and NGOs active in the counties will be used, along with focus groups among farmers involved in the horticultural sectors of study, field observations and policy documents at county level. In order to strategically select relevant stakeholders, snowball sampling will be used as a technique (Morse, 2010). As it is not instantly clear who the stakeholders are in the sectors to be researched, snowball sampling is opted for as a way to identify them. Secondary data, in the form of policy documents and academic literature, are retrieved both through asking the relevant stakeholders interviewed for access to policy documents and through online search.

As the nature of this research is exploratory, unstructured and semi-structured interviews are used. These types of interviews allow flexibility and freedom for both the interviewer and interviewee in terms of contents, in order to delve deep into interesting topics that develop during the interview (Hollway & Jefferson, 1997). In-depth information can be achieved through these types of interviews (Hennink et. al., 2015), by "providing the opportunity on the part of the interviewer to probe and expand the interviewee's responses" (Rubin & Rubin, 2005, p. 88). As indicated before, the intention of this research is to build theory inductively. Both unstructured and semi-structured interviews provide the desirable degree of flexibility to achieve this goal. Besides interviews, secondary data is used in this research, in the form of academic literature and policy documents, in order to ensure triangulation. To answer sub-question 1, secondary data are the main type of data analyzed, as the countrywide scope of this sub-question and the limited time available for this research do not allow for an in-depth study of primary data. Moving on, unstructured interviews are used to answer sub-questions 2 and 3 of this research, as they are descriptive research questions, meaning that they are "open-ended, evolving and non-directional" (Creswell, 1998, p. 99). Such research questions require a research method with a large degree of flexibility (Onwuegbuzie & Leech, 2006). Because unstructured interviews provide the highest degree of flexibility possible in terms of interview types (Hollway & Jefferson, 1997) they will be used to answer the first two sub-questions (SQs). To ensure triangulation, SQs 2 and 3 are also answered by using secondary data, in the form of policy documents. A list of policy documents analyzed is shown in Appendix III. As is usual for unstructured interviews, merely the research questions and the major underlying themes are used in the interview guide, in order to allow for following up interesting developments during the interview and for letting the interviewee elaborate on several issues (Berg, 2009). In order to answer sub-question 3, semi-structured interviews will be used. As SQ 4 examines the relationship between one variable, being county governments, and another variable, being sustainable development, it is an analytical research question. The same counts for SQ 5, which examines the relationship between contextual factors and county government contributions to SD. Analytical research questions are directional, thus requiring a more structured approach than descriptive research questions (Onwuegbuzie & Leech, 2006). For this reason, SQ 4 and 5 are answered by using semi-structured interviews. An elaborate list of topics is recommended here instead of predetermined questions, in order to allow the required flexibility, while maintaining a level of structure that is necessary for a sound analysis (Berg, 2009). The topics, shown in the interview guide in Appendix I, follow from the indicators of the ISDH-model in the preceding chapter (see figure 2.2). Triangulation is accounted for in two ways. Firstly, focus groups among farmers are conducted, using the same interview guide as used for the interviews. Secondly, observational visits of relevant field sights are done. A list of field observations is shown in Appendix IV.

Finally, in order to account for gender equality among the research respondents, it was attempted to approach as many potential female respondents as possible. However, as a result of Kenya being a patriarchal society, the majority of people in positions of power are male. This includes most respondents in this research, such as national and county government officers and cooperative chairmen. Moreover, as men tend to own the majority of land in Kenya, including female farmers in the research provided another challenge. Nonetheless, actively approaching potential female respondents still led to 18 of the 61 respondents in total being female.

3.5. Data analysis

Analysis of the data was mainly done through a content analysis of the interviews, focus groups, and policy documents. Content analysis refers to:

"A method to classify written or oral materials into identified categories of similar meanings."

(Cho & Lee, 2014, p. 3)

Content analysis is, therefore, based on positivist inquiry and requires the identification of themes through coding (Cho & Lee, 2014). NVivo was used to code the data collected, whether in the form of transcripts or notes. When respondents had given their consent, interviews were recorded to allow for transcription. A total number of 32 interviews have been recorded and transcribed. As for the other interviews, respondents did not give their consent for recording. Consequently, notes were taken, which were subsequently analyzed using NVivo. As grounded theory studies intend to create explanatory theories for phenomena, advanced analytical and coding procedures are required for interpreting the data and developing concepts. NVivo is a software with functions that facilitate such procedures (Hutchison et. al., 2010). The function of creating memos and an node structure, for instance, may facilitate in the organization of thoughts for theory development. Furthermore, there must be evidence of a certain degree of theoretical density or depth when using a grounded theory approach, as mentioned before (Birks & Mills, 2015; Charmaz, 2006). However, many studies fail to transparently present the process of theory development (Bringer et. al., 2004). NVivo has the ability to provide a transparent account of the data analysis process, as it accommodates a function for visual representation of the node structure (Hutchison, p. 299). In order to account for transparency in this research, a code tree of the content analysis in NVivo for Sub-Question 2 is shown in Appendix V to illustrate the data analysis process. As this research takes a grounded theory approach, NVivo is deemed a relevant tool for analyzing the data. Moreover, during the field observations, notes were recorded in a journal. Van Maanen defines field notes as follows:

" Shorthand reconstructions of events, observations, and conversations that took place in the field."
(1988, p. 223)

Field notes have the advantage of capturing memories and ideas that come up during field observations, which might otherwise be lost in a later stage of the research process (Tessier, 2012). Recording memories and ideas in a field journal, therefore, is crucial for data analysis. Hence, a field journal was also used in this research to structure ideas and memories during field observations. Furthermore, some of the data have a strong spatial component, notably those on the location of counties, the sub-division into smaller units of government and agro-ecological characteristics of counties, all of which relate to sub-question 2. To better fit the spatial nature of these data, six maps are created using Geographical Information Systems (GIS). Maps are the most efficient means to transmit spatial data. Through GIS, spatial data can be translated into maps, providing information on location as well as thematic attributes (De By & Huisman, 2009). For this reason, GIS has been included as an analytical technique. The maps created in this research intend to complement textual analysis through visualization.

A complementary analytical technique used in this research is critical discourse analysis (CDA). Discourse is a concept with a multitude of definitions, depending on the context in which it is used. In the context of this research, discourse is understood as follows:

"An ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices."
(Hajer & Versteeg, 2005, p. 175)

In CDA, a discourse is understood to be predominantly constructed by language (Clarke, 2009). CDA offers an exploratory way to systematically analyze how realities are shaped by relations of power that are conveyed through language (Mogashoa, 2014). By analyzing the use of language in this way, CDA provides contextual understanding. Although some post-development scholars have lately opted for critical discourse analysis (CDA), such interpretivist approaches remain marginalized in international development research (Della Faille, 2011). The combination of positivist and interpretivist approaches is particularly rare. This is striking, as empirical findings are often highly context-bound in international development research (Smith, 2005). On top of that, the dynamics of power that CDA addresses are

intrinsic to most international development issues (MacDonald, 2003), and CDA bears significant value by uncovering such power relations (Bowen, 2009). Power relations, furthermore, are especially relevant in a political arena (Clarke, 2009) and in a foreign investment arena (Jarosz, 2000; Kirsten & Sartorius, 2002), both of which form the context of this research. For these reasons, CDA is deemed suitable as a complementary, interpretivist method next to the positivist methods used. Critical discourse analyses can be conducted in numerous ways. One of the most established techniques in a political context is Dryzek's. In his technique, four elements are identified in the research materials:

"1. The basic entities whose existence is constructed.
2. Assumptions about natural relationships between different entities.
3. Agents and their motives.
4. The key metaphors or other rhetorical devices that figure in the discourse."

(Dryzek, 2005, p.19)

After these elements are identified in the different research materials, comparison of the elements over the different research materials allows the construction of discourses. This technique is also applied in this research, for its political character matches a research with county governments as its main actor. Coding of the identified elements and ultimately the discourses is done using the software NVivo, which has been described as an appropriate tool for content analysis as well as discourse analysis (MacMillan, 2005). Policy documents and interview transcripts are the materials to be analyzed through this technique. Both policy documents at national government and at county government level are analyzed. CDA is used solely in relation to SQ 4, since SQ 4 is an analytical question, which requires more theoretical density than a descriptive question does (Birks & Mills, 2015). In this research, the CDA particularly aims to discover what meaning is given to the concept of sustainable development (SD), assuming that the way county governments understand SD shapes practices regarding their contribution to SD. By using CDA, additional contextual understanding is created, contributing to answering sub-question 3 with sufficient theoretical density and ultimately allowing a generalization of findings to other contexts.

3.6. Methodological reflection

This section consists of a reflection on the methods used and the methodological choices made. It first discusses the concepts of validity and reliability and how these are enhanced, before elaborating on the limitations of the research and how these have been attempted to overcome.

3.6.1. Validity and reliability

The validity of a research refers to the accuracy and trustworthiness of the methods used (Bernard, 2006). A concise definition of validity is given by Golafshani:

"Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are."

(2003, p. 599)

The research units for the interviews and focus groups will be the local governments and other stakeholders in the investments. This allows for the participants to provide their own views and perceptions on their role, providing them a level of ownership. As interviewing is the core method used, views and perceptions of the participants play a central role in the methodology. In this way, the validity of the research is enhanced. Assuming that the data collected is valid, questions arise over whether the findings from the data are reliable. Reliability in research methods refers to this issue (Bernard, 2006). Golafshani defines reliability as follows:

"The extent to which results are consistent over time and an accurate representation of the total

population … and [the extent to which] the results of a study can be reproduced under a similar methodology."

(2003, p. 599)

The first part of Golafshani's definition, "the extent to which results are consistent over time and an accurate representation of the total population" (Golafshani, 2003, p. 599), is referred to by Golafshani (2003) as 'internal consistency', while the latter part is referred to as 'repeatability'. To increase the internal consistency of the methods, triangulation is used (Fielding, 2012), in this case referring to a combination of interviews, focus groups, CDA and literature study. The use of secondary data, in the form of policy documents and literature study, complements the primary data collection, as it allows to compare current data with past data. The use of secondary data, moreover, allows for analysis of a larger population. This makes the data a more accurate representation of the total population, enhancing the internal consistency even further. The internal consistency is also enhanced by including a wide variety of actors in the research, as opposed to focusing on only one or two types of actors. Furthermore, by complementing a positivist approach with an interpretivist approach, there is a greater understanding of contextual factors which allows a more accurate generalization to the total population. The use of an interpretivist approach, therefore, further enhances the internal consistency of the research. Lastly, two case studies are done with strongly divergent contexts, in order to test whether the results of the study can be reproduced in different locations with a similar methodology, and to account for possible alternative explanations. In this way, the repeatability of the research is enhanced.

3.6.2. Methodological limitations

Like any research methodology, this methodology has its limitations, both in terms of its aim and in terms of its data collection. The aim of this research is to build theory inductively by doing an exploratory analysis of the topic, serving as an inspiration for further research. The use of solely qualitative methods is necessary to collect data with an adequate level of depth, which is on its turn necessary to develop new theory with a strong foundation. Quantitative methods would be useful to test new theories (Birks & Mills, 2015). To test the new theory is, however, beyond the scope of this research. As a consequence, the findings of this research, being untested, are inherently preliminary and tentative. Despite the tentativeness of its findings, the research does provide dense and in-depth data that could be acquired through an innovative methodological approach, combining positivism and interpretivism. This results in relevant new theoretical insights on the role of local governments in sustainable development. Therefore, the methodological limitations do not detract from the aim of the research to stimulate academic and societal progression.

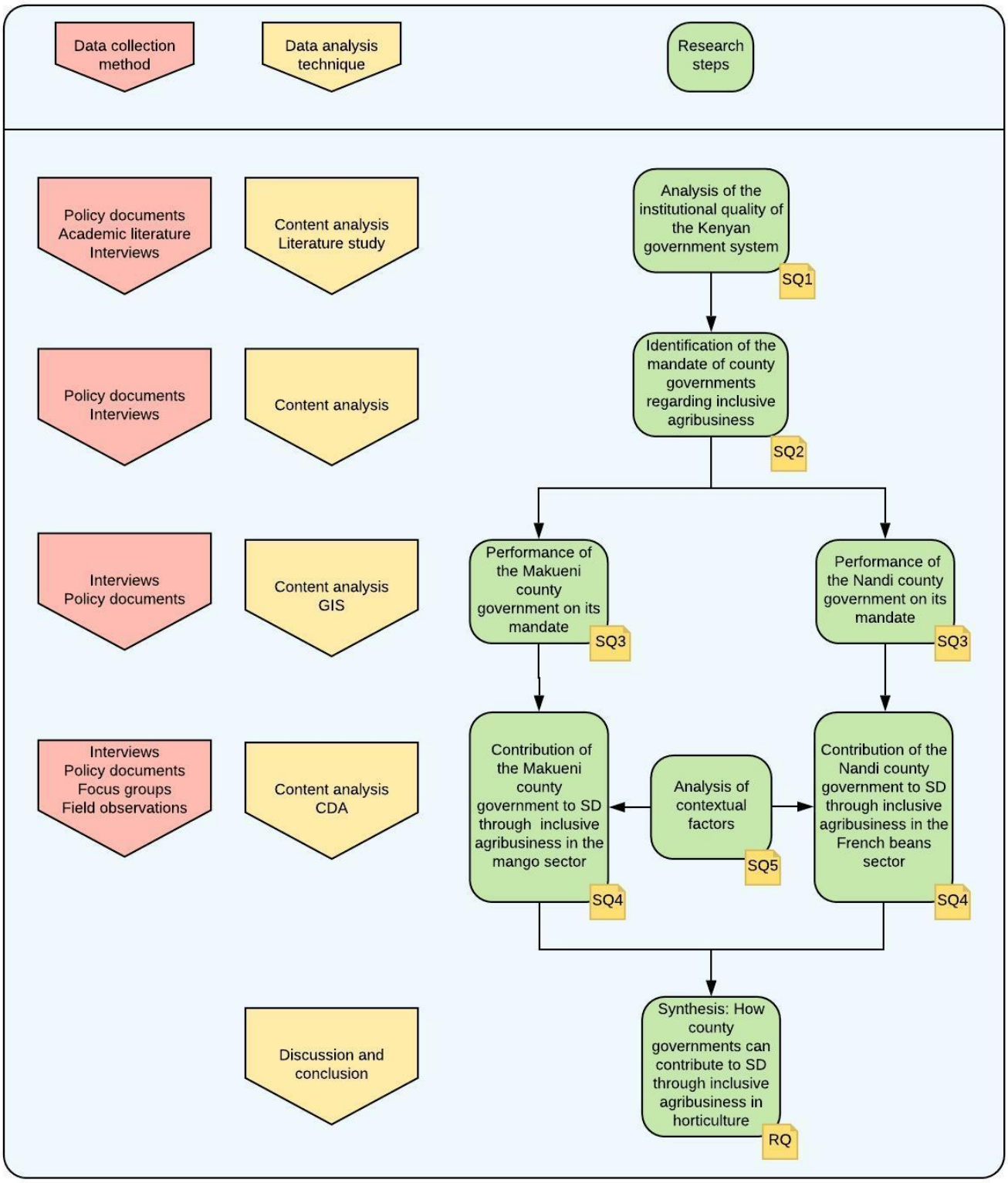
Moreover, the limited time frame allowed an analysis of only two case studies. Even though the case studies have been carefully selected to enhance the reliability of the research, it is most likely that numerous variations exist between local contexts. To account for these variations, a combination of positivist and interpretivist methodological approaches is used. However, due to the low number of case studies analyzed, the contextual variations derived are limited. The results can, therefore, only tentatively be generalized to the Kenyan context. Even more attentiveness is required when generalizing the findings to a developing country context, as not only institutional and political, but also socio-economic situations in the Global South vary wildly. Another limitation involving time constraints concerns the variety of respondents. Because a wide variety of actors has been included in the research, it was not feasible to realize a large number of respondents per actor group. It would, for example, be beneficial for the results if a larger amount of farmers or county government officers could have been interviewed. However, the research explicitly used purposive sampling to create a varied group of respondents, in order to account for different perspectives. In the end, the primary sampling goal, providing a wide variety of perspectives, was achieved. The fact that this is at the cost of the number of respondents per actor group is, unfortunately, inevitable.

A third limitation relates to the data collection and the nature of the actors analyzed. As politicians, cooperatives and farmers all might protect special interests, the interviews done with those respondents may be slightly colored. To account for this, interviews have been conducted with experts who were deemed, to a certain degree, neutral. This includes, for instance, interviews conducted at research institutions, think tanks and NGOs. Another challenge regarding the data collection was to retrieve truthful farmer perspectives. Initially, farmer focus groups were organized through either local politicians or cooperative chairmen. The validity of the data retrieved from these focus groups is questionable, either because the organizers were present during the focus groups, making the farmers less likely to express certain opinions, or because the organizers of the focus groups had selected farmers strategically, protecting their own interests. To relieve this issue, other farmers were visited and interviewed on an individual basis later on, partnering with motorcycle taxi drivers to use them as alternative, more neutral interpreters. Fortunately, the farmers seemed to be remarkably more expressive in this setting, enhancing the validity of the findings. A final limitation regarding data collection is the language barrier. An interpreter was necessary for some of the farmers interviewed, complicating communication. Misinterpretation was minimized by leaving the interpretation to motorcycle taxi drivers again, who are less likely to protect special interests.

3.7. Research framework

In figure 3.1, the research framework is presented. This framework visualizes the research design as discussed in this chapter. It includes the steps to be taken to answer the research question, including the corresponding data collection methods and analytical techniques, as described in this chapter.

Figure 3.1: Research framework.



4. Results I: The institutional and political quality of the Kenyan government system

Now that the research design is illustrated, the results are presented in the following chapters. This chapter includes the results on sub-question 1, discovering the institutional and political quality of the Kenyan government system. In order to do this, the institutional structure of the Kenyan government system is introduced first, after which the institutional and political challenges of the system are analyzed.

4.1. The institutional structure of the Kenyan government system

Illustrative for the highly centralized systems of government in many countries in Africa, is the system of Kenya after its independence in 1963. Since political decisions could be made centrally in Kenya, with limited or no public participation, rent-seeking practices were widespread and resources were largely distributed based on ethno-political considerations. Ethnic patronage politics resulted in investments being directed towards areas that had already been developed, notably Central Kenya, which resulted in the marginalization of ethnic minorities far away from the core (Ng'ethe & Kanyinga, 1998). Instead of fostering development and creating national unity, the central state deepened inequalities in development and further divided the country along ethnic lines. Ethnic minorities, who felt excluded from political power, mooted decentralization as a solution to these inequalities. Popular discontent grew over the years and erupted during the December 2007 elections, when the feelings of exclusion turned into violent conflict between the ruling government party and the opposition. International mediation led to a coalition government, which agreed to review the constitution. In 2010, the new constitution was finalized, with extensive decentralization measures as its centerpiece. This eventually led to the formation of 47 county governments in 2013, which are supposed to be further subdivided into sub-counties and wards (Kanyinga, 2016; Cheeseman et. al., 2016). The devolution of government has several objectives, many of them touching on the feelings of exclusion and inequality in the country, such as the promotion of "democratic and accountable exercise of power", "fostering national unity by recognizing diversity", "giving powers of self-governance to the people", "protecting the rights of minorities" and "ensuring equitable sharing of national and local resources throughout Kenya.[1]

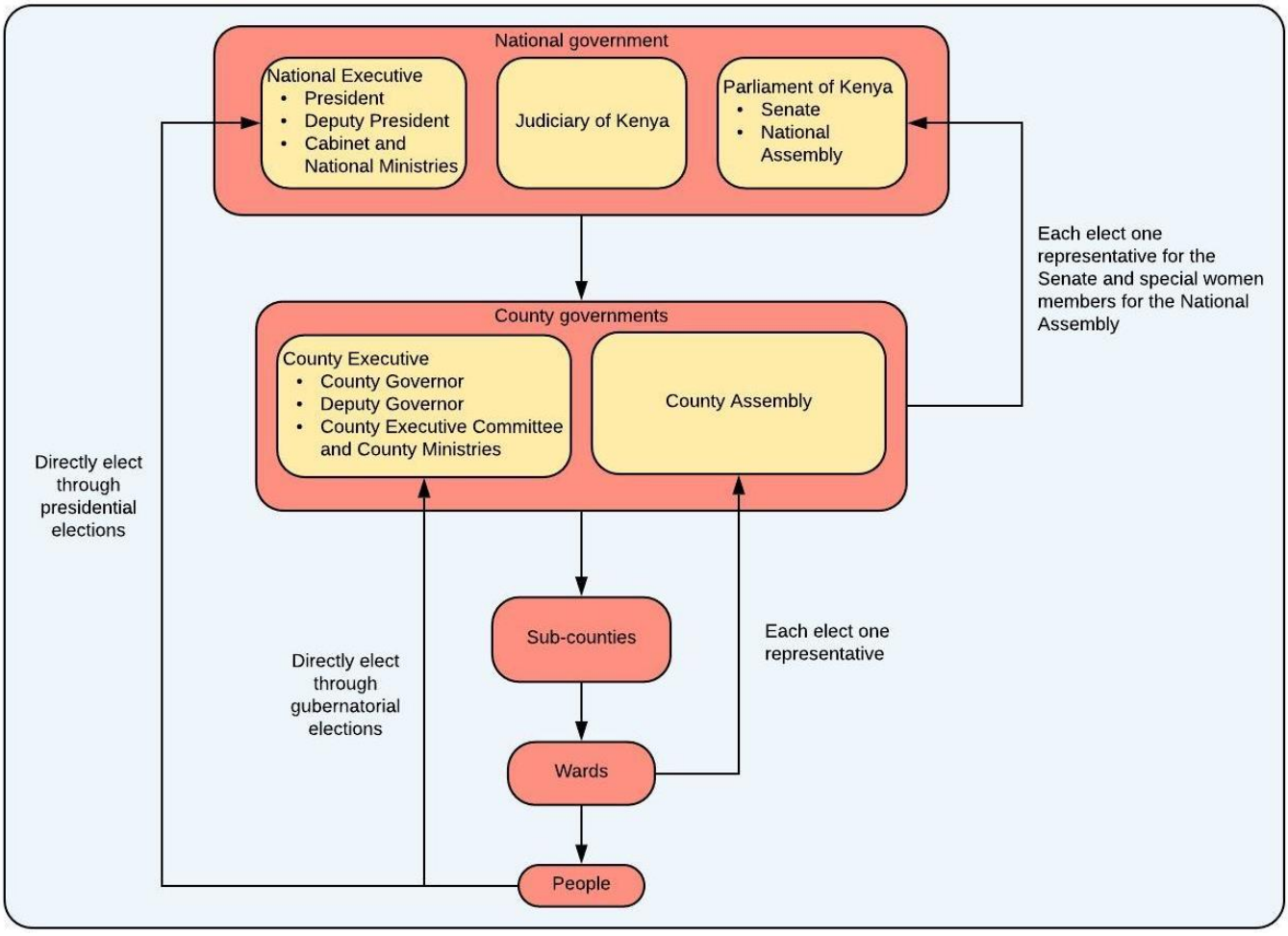
In terms of separation of powers, the national government of Kenya consists of the Parliament of Kenya, comprising of the Senate and the National Assembly, the Judiciary of Kenya and the National Executive. In this separation of powers, the Parliament of Kenya is the legislative authority of the country, while the Judiciary arm implements the legislation. The National Executive is the executive authority of Kenya, which executes the functions ascribed to the national level of government. Whereas the national government of Kenya has three arms, county governments have two: the County Assembly and the County Executive. The former is the legislative authority of the county, the latter is the executive authority. The County Assembly is comprised of members elected by voters of the county's wards, the lowest units of government within the county. It consists of a single representative for each ward. The list of persons to be elected in the wards are nominated by political parties, proportionally to the seats that political party received in the elections. The assembly exercises its legislative authority mainly through the creation of laws that stimulate an effective performance of the county government's functions. On top of that, the County Assembly may approve plans or policies for the exploitation of resources or the development of infrastructure and institutions.[2] The County Executive, on the other hand, implements county legislation, makes policies and executes interventions in the county. Additionally, it implements national government legislation, created by

[1] Policy document 7: County Governments Act, article 3.

[2] Policy document 6: Constitution of Kenya.

the National Assembly and the Senate, and national policies, created by the National Executive.[3] The County Executive is headed by the County Governor and consists County Ministries that can be managed and coordinated to the county's needs or preferences. The heads of all County Ministries form the County Executive Committee, similar to the Cabinet on the national level. Similar to the direct presidential elections that constitute the National Executive, the County Executive is constituted through direct gubernatorial elections. Furthermore, the county governments in Kenya each elect a single member of parliament to the Senate and special women members of parliament to the National Assembly.[4] The institutional structure of the Kenyan government system is schematically presented in figure 4.1.

Figure 4.1.: Institutional structure of the Kenyan government system.



According to the Kenyan constitution, functions of the county governments include agriculture, health services, control of pollution, cultural activities, transport, animal control and welfare, trade development and regulation, county development and planning, pre-primary education, environmental conservation and natural resources, public works and services, disaster management, drugs control, and ensuring the participation of communities in governance at the local level.[5] The

[3] Interview 13: Kenya Ministry of Devolution and Planning: Devolution & Agriculture Officer.
[4] Policy document 7: County Governments Act.
[5] Policy document 6: Constitution of Kenya.

national government, on the other hand, is mainly responsible for the development of policies, which should be implemented at the county level in accordance with their specific needs. Additionally, the national government has certain other executive functions, including for example education, police services and inter-county transport. The national government and county governments are supposed to cooperate by exchanging information, implement the other level's legislation or policies as appropriate, coordinate policies and enhance the other level's capacity as appropriate. In order to ensure a coordination between the two levels of government, several intergovernmental institutions have been established. The most prominent of these institutions is the National and County Government Coordinating Summit, popularly known as "The Summit". The Summit is a forum consisting of the President of Kenya and the governors of the 47 counties. The members of The Summit should at least meet bi-annually to ensure effective consultation and cooperation between the national and county governments. Other forums include the Interngovernmental Budget and Economic Council (IBEC), the Intergovernmental Relations Technical Committee (IGRTC), the Council of County Governors (CoG) and the Transition Authority (TA). The latter was established by the Kenyan national government in 2010, in order to ensure a seamless transition from the old to the new constitution. The TA is, among other things, responsible for the development of frameworks that should guide the devolution process. Furthermore, contrary to most other devolved governments around the world, the majority of taxes may only be imposed by the national government, including income tax, value-added tax, customs duties, duties on import and export goods and excise tax. However, the county government are allowed to impose property rates, entertainment taxes and "any other tax that is authorized to impose by an Act of Parliament"[6]. Furthermore, the national government is supposed to allocate a minimum of 15 per cent of the total national revenue to the county governments. On top of that, they may be provided with additional allocations of national revenue, either conditionally or unconditionally.[7]

4.2. Institutional and political successes and challenges of the Kenyan government system

A number of successes were achieved during the first few years after the devolution. The major success is that the ambitious reforms, including the devolution of political, administrative and fiscal power, have actually been implemented. This includes, for instance, the devolution of laws, the operationalization of county governments and the transfer of functions and financial resources to the county governments. As for the latter, 32 per cent of national revenue is being distributed to the counties yearly, which exceeds the 15 per cent minimum threshold in the constitution.[8] Furthermore, citizens can participate in the governance of their county through the election of representatives. In the past, power and resources were centralized and participation of citizens in governance was minimal. In this regard, at least in its form and implementation, the devolved government system in Kenya is a major departure from the past system. Nevertheless, several challenges inevitably remain. For example, although a framework for the transfer of functions was developed by the Transition Authority (TA), the transfer of functions did not comply with the framework's criteria. This is because the transfer of functions was, for various reasons, accelerated compared to the original schedule. Therefore, as a consequence, some counties have received functions for which they lack the capacity, in terms of human resources, to implement.[9] Furthermore, counties are required to decentralize further to the smallest possible units of government, in order to achieve an optimal structure for service delivery and public participation. The units of government used in most counties are sub-counties and wards. However, this profound decentralization process has not been operationalized completely as of yet in some counties, due to the aforementioned lack of capacity and a subsequent

[6] Policy document 6: Constitution of Kenya, article 208.
[7] Policy document 6: Constitution of Kenya.
[8] Policy document 6: Constitution of Kenya.
[9] Interview 14: Kenya Ministry of Devolution and Planning: Chief Devolution & Agriculture Officer.

lack of a well-functioning delegation system. This means that not only the level of public participation in some counties remains low, but also that some counties may be unable to initiate development interventions.[10]

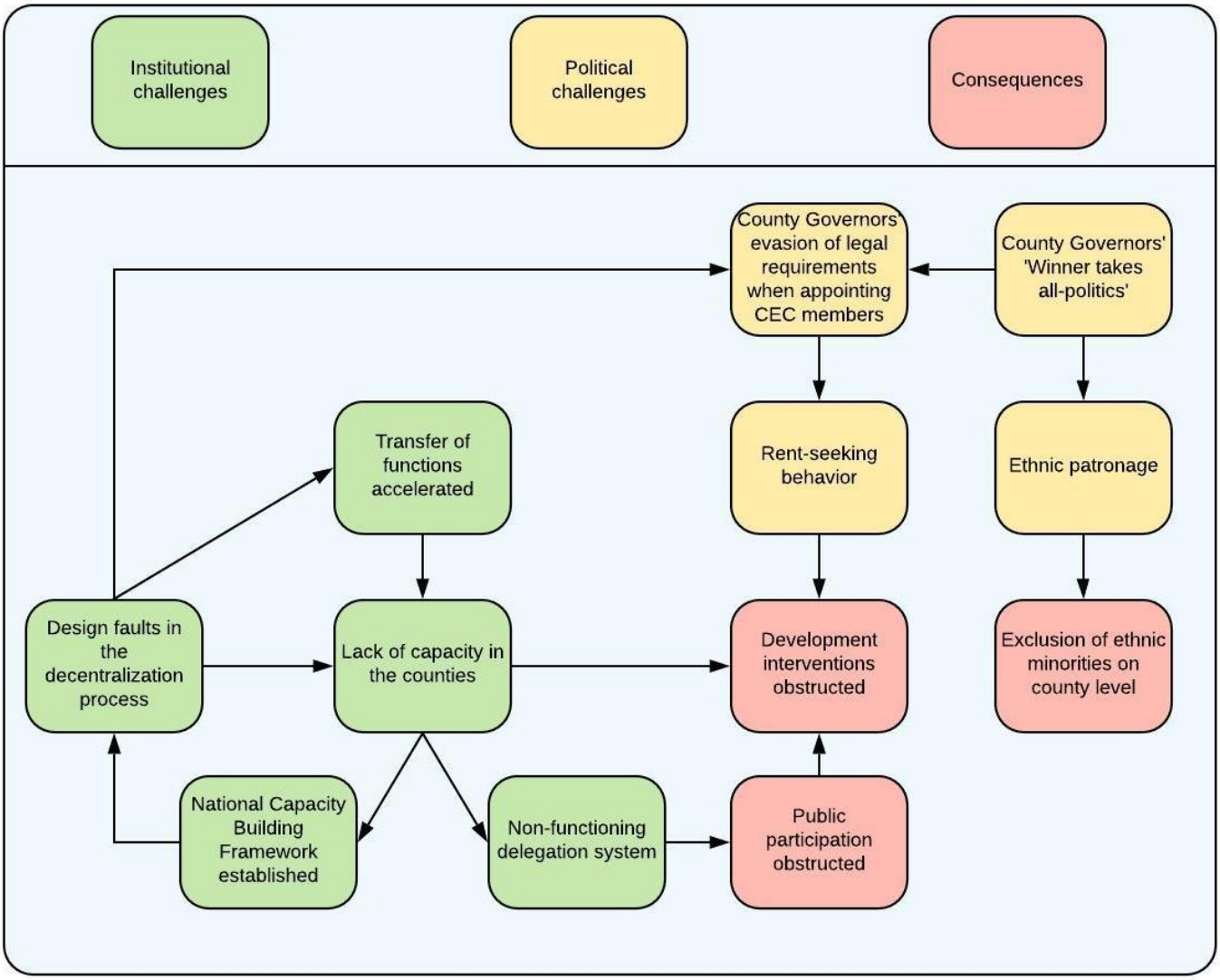
In order to tackle the lack of capacity in some counties, in terms of human resources, the national government has required the TA to carry out an audit of the existing human resources of the counties, the capacity needs and the measures required by the national government to ensure that all counties have adequate capacity to undertake their functions. This has resulted in the National Capacity Building Framework (NCBF), that should guide the capacity building of county governments. However, the framework has not had the desired results as of yet, because of several challenges that relate to the TA and other intergovernmental institutions. Firstly, there is a lack of administrative procedures for establishing and managing these institutions. Secondly, the decision of the institutions are not binding, and thirdly, there is no enforcement mechanism for decisions of such institutions. Because of the fact that decisions of the TA are not binding and cannot be effectively enforced, the NCBF has not led to an increased capacity in the counties. Thus, due to intergovernmental design faults in the decentralization process, the TA has not been able to ensure that counties have the adequate capacity to implement their functions. In addition to that, the fact that decisions of the forums are not binding allowed the accelerated transfer of functions mentioned earlier, even though this transfer did not comply with the criteria developed by the TA. This eventually led to the fact that some counties received functions for which they lack the capacity to implement, as mentioned before. The intergovernmental design faults are, therefore, the major cause of the lack of capacity in the counties.[11]

Besides the institutional challenges the Kenyan government system faces, there are some political challenges that undermine the functioning of the system. As said before, ethnic patronage and rent-seeking were major problems in pre-devolution Kenya. One may expect the devolution to have reduced such practices. Nonetheless, only to a limited extent is this the case in Kenya. Gatthi & Otieno (2018) argue that, although the fiscal resources have been equally and sufficiently distributed among the counties, the devolution has relocated ethnic patronage networks from the national level to the county level, in response to some popular pre-devolution expectations that it was “everyone’s turn to eat”. D’Arcy and Cornell (2016) came to the same conclusion. Their data of the backgrounds of winning gubernatorial candidates showed that in all but four counties, the governor came from the majority community. Additionally, the majority of candidates ran clientelist campaigns by distributing private goods and had held jobs within the state, meaning they could more easily demonstrate a record of patronage. On top of that, ethnicity has been indicated as one of the most important factors for winning gubernatorial elections in the county. Subsequently, most county governments have pursued ethnic dominance by occupying the majority of seats in the County Executive Committee (CEC), which is referred to as ‘winner takes all-politics’. Concludingly, according to D’Arcy and Cornell (2016), this ‘winner takes all-politics’ has, in some counties, created new minorities at the county level. In addition to that, Gatthi & Otieno (2018) noted that 40 out of 47 County Governors in 2018 flaunted the legal requirements in appointing their CEC members, especially relating to the requirement that “those appointed to County government employment should be cleared on financial probity, corruption, criminal conduct and tax compliance”. As these requirements have been established by intergovernmental forums, there is no mechanism for enforcing such requirements, allowing the Governors to constitute county governments to their preference. This means that, besides pursuing ethnic dominance, the majority of County Governors have evaded legal restrictions when constituting the county government by appointing CEC members with a doubtful record. As a result, only 10 of the 47 counties analyzed by Gatthi & Otieno (2018) had met the 30% target budget expenditure on development interventions. Instead, several counties had engaged in more wasteful expenditures on,

[10] Policy document 1: Policy on Devolved System of Government.
[11] Policy document 1: Policy on Devolved System of Government.

for instance, foreign trips, office furnishings, iPads, luxury vehicles and mansions for Governors. Concludingly, it can be argued that devolution has only relocated ethnic patronage networks and rent-seeking to the counties instead of reducing these issues, although an optimist would conclude that the devolution has at least increased access for most ethnic groups in the country to state resources via the county level. Not only has this led to county-level exclusion of ethnic minorities, it has also obstructed development interventions to take place. Figure 4.2 schematically illustrates how institutional and political challenges are interrelated and how they have hindered the functioning of the Kenyan government system.

Figure 4.2.: Institutional and political challenges of the Kenyan government system.



5. Results II: The mandate of county governments regarding inclusive agribusiness

Now that the institutional and political quality of the Kenya government system has been analyzed, the mandate of county governments regarding inclusive agribusiness in horticulture is identified in this chapter. This is done by identifying the tasks assigned to county governments in this matter, the responsibilities of other stakeholders and the institutional structures for coordination of responsibilities.

5.1. Tasks assigned to county governments regarding inclusive agribusiness

Along with the new 2010 constitution, a broad array of functions in the agriculture sector, of which the horticulture sector is a part, were devolved from the national government to the county governments. This includes all service delivery functions and the function of translating policies into developments of agricultural commercialization[12], making the sector one of the first to fully devolve the function of service provision[13]. In other words, any political intervention in horticultural value chains is executed by the counties. This may include trainings, storage, input provision, the organization of farmers into groups, or the attraction of inclusive agribusiness. However, no specific services that county governments should provide are mentioned in the constitution. The counties, therefore, have a great amount of freedom in choosing how to approach inclusive agribusiness in horticulture.[14] In addition to that, a county government may enter into partnerships with any public or private organization or establish a company themselves for the delivery of a particular service.[15] That said, it should be noted that policy-making is still the responsibility of the national government. Thus, whereas the national government sets the agenda, county governments are responsible for the implementation of that agenda, taking into account the specific needs of their county. Nevertheless, county governments are allowed to make policies themselves for county-specific issues. The main national policy agenda is the Kenya Vision 2030, an aggregated policy document including all sectors, which is required by law to be implemented by the county government through quadrennial County Integrated Development Plans (CIDPs) and Annual Development Plans (ADPs). All county governments are required by law to present such plans every four years and every year respectively. Concludingly, due to the profound character of Kenya's devolution, county governments have a great amount of freedom in deciding the nature of their role in inclusive agribusiness.

5.2. Responsibilities of other stakeholders and institutional structures for coordination regarding inclusive agribusiness

Besides county governments, there is a wide range of other stakeholders playing a role in horticultural agribusiness. The most prominent of these is the national government, which sets the policy agenda. The implementation of policies is a function of the county government. Consultation and collaboration are key mottos in the relationship between the national government and the county government. This mainly takes place through the aforementioned intergovernmental forums.[16] Nonetheless, the decisions of the forums are not binding, as mentioned before, and a mechanism for national government assessment of county government's performance is absent.[17] When it comes to inclusive agribusiness, investments must be coordinated with the county governments, and investors are expected to approach the respective county government when planning an investment. The Kenya Investment Authority can help facilitate the investment, guiding the investor step-by-step through the

[12] Policy document 3: Agricultural Sector Development Support Programme II.
[13] Policy document 8: National Climate Change Action Plan 2018-2022.
[14] Interview 2: Kenya National Ministry of Agriculture: Director of Horticulture.
[15] Policy document 6: Constitution of Kenya.
[16] Interview 14: Kenya Ministry of Devolution and Planning: Chief Devolution & Agriculture Officer.
[17] Policy document 1: Policy on Devolved System of Government.

investment procedure and providing them with the relevant approvals and licenses.[18] Furthermore, county governments often play a role in creating an enabling environment for inclusive agribusiness, for example by providing extension services, like farmer trainings on agronomic practices. In order to provide adequate extension services, county governments need state-of-the-art knowledge, technology and information input. This input is predominantly created and disseminated by agricultural research institutions, of which a considerable pool exists in Kenya. Because these institutions mostly operate independently, the challenge is how to establish an integrated agricultural research system. Next to county governments, the private sector and non-governmental organizations (NGOs) have lately become involved in providing extension services. There is a large fragmentation of responsibilities in this regard, despite the Agricultural Sector Coordination Unit (ASCU) being established in 2005 to coordinate the activities of the different stakeholders. ASCU coordinates budgeting and assesses whether the activities of stakeholders conform to the national government agenda and county development plans.[19] Nonetheless, similar to the intergovernmental forums, it lacks enforcing power to coordinate the responsibilities of stakeholders efficiently. Furthermore, cooperatives represent the interests of the smallholder farmers involved in inclusive agribusiness, lobbying on their members' behalf with various stakeholders, including the county government, investors and NGOs.[20] Also, they empower their farmers by allowing them to benefit from economies of scale, for example by providing a common market for their produce.[21] In summary, a variety of stakeholders may play a role in inclusive agribusiness, but institutional structures for coordination of these stakeholders are inefficient.

[18] Interviews 3 and 4: Kenya Investment Authority: Policy Officer & eRegulations Coordinator.
[19] Policy document 3: Agricultural Sector Development Support Programme II.
[20] Interview 19: Makueni Fruit Value Chain Investment Cooperative Society: Chairman.
[21] Interview 24: Makueni County Fruit Processors Co-Operative Society: Chairman.

6. Results III: Makueni

In chapters 4 and 5, the Kenyan government structure has been discussed and the mandate of county governments with regard to inclusive agribusiness has been clarified. In this chapter, the performance of the Makueni county government on its mandate is examined by identifying its strengths and weaknesses concerning inclusive agribusiness. Additionally, this chapter presents the Makueni government's contributions to sustainable development. In order to do this, the county is first introduced by means of describing its agro-ecological characteristics, main challenges and inclusive agribusiness investments in its mango sector.

6.1. Agro-ecological characteristics and the mango sector in Makueni County

Makueni county is situated in the semi-arid Southeast of Kenya. It consists of six sub-counties, which are further subdivided into 30 wards.[22] The sub-counties of Makueni and the county's location within Kenya are presented in figure 6.1. The county headquarters are situated in Wote, the location of which is shown in figure 6.2. The low amount of rainfall in the county has a major effect on its horticultural potential. Because the low-lying Southern sub-counties in Makueni receive little rainfall, they only have potential for horticulture along the river basins. Contrarily, the hilly Northern sub-counties in Makueni have medium rainfall. Figure 6.3 illustrates the difference between the amounts of rainfall in Makueni's sub-counties. Moreover, the variability of rainfall in the county is extreme, resulting in prolonged droughts. The unreliability of the rainfall in Makueni is worsened by the adverse effects of climate change. Although surface water is scarce in Makueni, underground water is abundant, especially in the comparatively drier Southern part of the county. Despite the unreliable and low rainfall, the county's potential for horticultural production, if irrigated, is high due to its fertile soils. Temperatures in the county range from 18-24 degrees Celsius during the cold season to 24-33 degrees Celsius during the hot season. Temperatures in the low-lying Southern part of the county are considerably higher, resulting in high evaporation that limits plant growth. Massive crop failures in this part of the county are common.[23]

In an attempt to overcome agro-ecological challenges, Makueni farmers have taken up mango farming over the latest years. Mangoes are more versatile compared to other crops and have the ability to thrive in low rainfall and a wide range of temperatures. The rapid and widespread adoption of mango farming in Makueni has made the county the leading producer of mangoes in Kenya. However, a number of challenges have arisen. Although a great number of (informal) mango buyers, or brokers, are present in Makueni, mango farmers have experienced up to 30 percent post-harvest losses. The brokers sell the mangoes mainly locally, in Nairobi or other places in Kenya. Around 20-30% of the mangoes is exported, mainly to Tanzania and the Middle East, as the mangoes currently do not meet the requirements for export to the European Union.[24] Nonetheless, gross margins for farmers are generally low or sometimes even completely absent when mangoes are sold to brokers. Farmers are often forced to sell to brokers due to a lack of access to other markets. To tackle these issues, mango farmers have, through cooperatives, proposed the idea of a mango processing plant to the county government. As a result, the Makueni Fruit Processing Plant (MFPP) was opened in the marginalized village of Kalamba in 2017, approximately 30 kilometers Southwest of Wote. The Makueni county government has obtained a grant from the European Union for the installation of the plant. The objective of the plant is to provide smallholder farmers with an alternative market for their mangoes, in an attempt to reduce post-harvest losses and low margins. In order to give the local population a sense of ownership over the MFPP, the county government is responsible for operating the plant, while two farmer cooperatives are contracted for the supply of mangoes to the plant. These two cooperatives are the Makueni Fruit Value Chain Investment Cooperative Society (MFVCICS) and the

[22] Policy document 10: Makueni County Integrated Development Plan (CIDP) 2018-2022.
[23] Policy document 13: Makueni County Vision 2025.
[24] Interview 19: Makueni Fruit Value Chain Investment Cooperative Society: Chairman.

Makueni County Fruit Processors Cooperative Society (MCFPCS).[25] On their turn, the cooperatives hire lorries that bring the mangoes to the plant. Next to mangoes, it is also possible to process other fruits in the plant, such as avocados, melons, passion fruits and oranges. Nonetheless, only mangoes are processed in the plant currently, although there are preliminary plans to start processing oranges. The plant drains the pulp from the mangoes, after which the pulp is sold to juice companies abroad, who convert the pulp into juice. Eventually, the county government aims to introduce a ready-to-drink line within the plant, adding more value to the product locally. The county government buys mangoes that are too ripe to be exported and can for that reason not be sold to brokers anymore. The mangoes are bought at a fixed rate of 15 Kenyan shillings per kilo, in an attempt to make sure that the farmers get a fair price for their mangoes. The county government trains the mango farmers using their own extension officers, to make sure the farmers can produce mangoes of the right type and quality to the plant.[26]

Figure 6.1.: Sub-counties of Makueni.

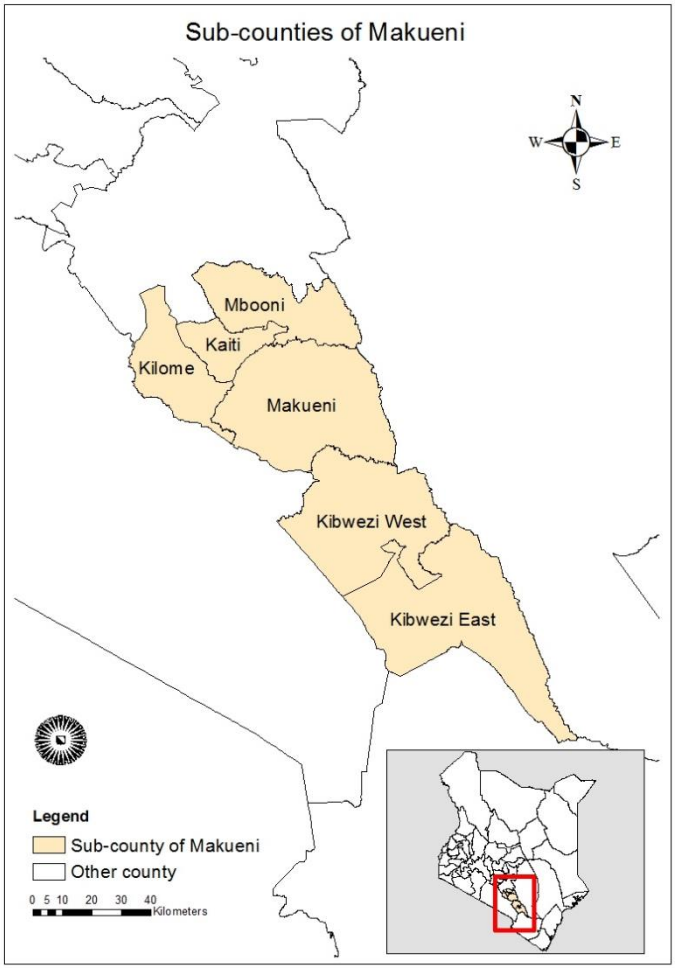
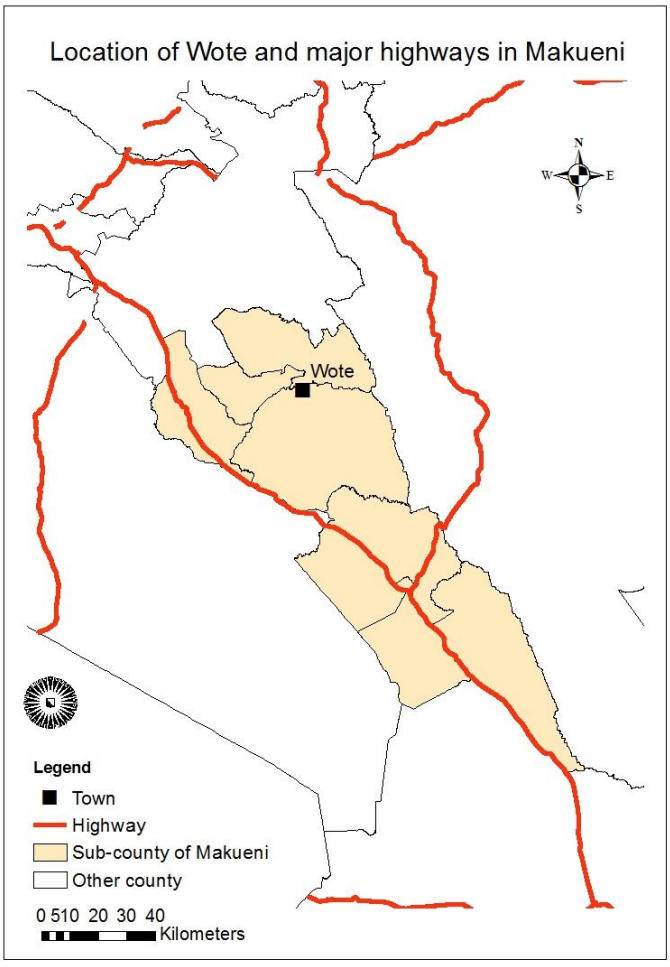
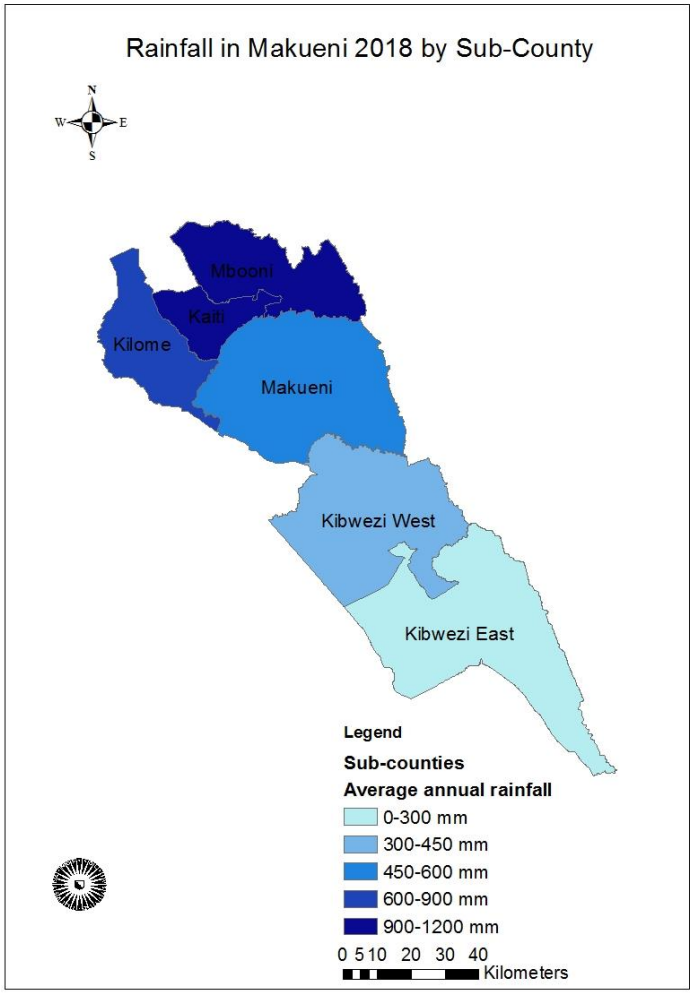


Figure 6.2.: Location of Wote and major highways.



[25] Interview 16: Makueni Ministry of Agriculture, Livestock and Fisheries: Agribusiness Development Officer.
[26] Interview 18: Makueni Fruit Processing Plant: Operator.

Figure 6.3.: Average annual rainfall in Makueni.[27]



6.2. Performance of the Makueni county government regarding inclusive agribusiness in the mango sector

In section 6.1, the agro-ecological characteristics of Makueni and the main issues and investments in the mango sector have been presented. Now that the case study area has been introduced, the performance of the Makueni government in the mango sector will be investigated by identifying its strengths and weaknesses in terms of attraction of inclusive agribusiness, coordination of stakeholders in inclusive agribusiness and the creation of an enabling environment for investors.

6.2.1. Strengths and weaknesses of the Makueni government regarding the attraction of inclusive agribusiness to its mango sector

When it comes to investments in Makueni, potential investors tend to approach the county government themselves. This was also the case for the Makueni Fruit Processing Plant, where the EU approached the county government themselves to offer their partnership for the project.[28] Nonetheless, the county government does use strategies to actively attract inclusive agribusiness investments. The main tool for this is identifying and communicating the potential of the county. The potential is identified by zoning the county agro-ecologically and identifying the suitable crops for each

[27] Rainfall data retrieved from Policy Document 11: Makueni Annual Development Plan (ADP) 2019/2020.
[28] Interview 20: Makueni Ministry of Agriculture, Livestock and Fisheries: Director of Agriculture.

zone.[29] Mango production has been identified as a sector with high potential countywide, due to the versatility of the crop. In order to communicate the potential, Makueni organizes annual investor conferences. In these conferences, potential agribusiness investors are invited. The business potentials of the county are shared to the investors, while the investors have the opportunity to express their needs to the county government. Moreover, in the case of the Makueni Fruit Processing Plant, the county government even provides an implementing service. This means that they operate the plant themselves, while it is mainly externally funded. This construction is rare in Kenya, where county governments have until now mainly played facilitating roles. The high human capacity of the Makueni county government has convinced investors to fund a project with this construction.[30] On the downside, the location of the Makueni county government headquarters in Wote is unfavorable for investors. It is far from the highways that traverse the county, as shown in figure 6.2 on page 42, and the road infrastructure towards the town is not well-developed.[31]

6.2.2. Strengths and weaknesses of the Makueni government regarding the coordination of inclusive agribusiness stakeholders in its mango sector

When an investment partner comes in, a Memorandum of Understanding (MoU) is established between the investor and the county government, containing agreements on what the roles of both parties are in the project. The county government insists on having an MoU, in order to avoid duplication of activities in the same sector or the same area. The MoUs, therefore, play an important role in the coordination of agribusiness in the county. Furthermore, the county government holds quarterly stakeholder meetings with all partners involved in agribusiness. Any stakeholder involved with an agribusiness project in the county is invited, including research organizations, private companies, cooperatives and NGOs. During these meetings, the county government can keep up-to-date about the latest developments of all their projects. In addition to the meetings, the county government publishes quarterly reports for their partners on all their activities in the county. With regards to coordination with the national government, Makueni uses the existing forums for intergovernmental coordination as described in section 4.1.[32]

Several challenges also exist with regards to coordination of stakeholders in Makueni. One of them is related to the county government extension staff who provide trainings for the farmers. As NGOs also have extension officers active in the county, a proper coordination mechanism is required between them. On top of that, county government extensionists are generally less skilled than the extensionists of most NGOs. However, communication between NGO extensionists and their county government counterparts has proved to be hard. NGO extensionists are willing to train the county government extension staff, but train-the-trainers initiatives have mainly evoked feelings of underestimation among the Makueni government extensionists. A coordination mechanism between county government and NGO extension staff does not exist either. [33]

Another major coordination challenge concerns the Makueni Fruit Processing Plant. There is a lack of coordination among stakeholders regarding transportation to the MFPP. As said before, the county government has left the transportation to the two main fruit farmer cooperatives in the county for efficiency reasons. The cooperatives, on their turn, have hired a lorry driver to bring the mangoes to the plant. The lack of a clear procedure leaves a multitude of problems. In terms of quality of the mangoes, if one farmer produces their mangoes poorly, this might end up spoiling other, well-produced mangoes. It is not traceable what mangoes have been produced by what farmer, since all

[29] Policy document 13: Makueni County Vision 2025.
[30] Interview 20: Makueni Ministry of Agriculture, Livestock and Fisheries: Director of Agriculture.
[31] Interview 6: Kenya Institute for Public Policy Research (KIPPRA): Policy Analyst.
[32] Interview 20: Makueni Ministry of Agriculture, Livestock and Fisheries: Director of Agriculture.
[33] Interview 28: Solidaridad East & Central Africa: Field Coordinator Horticulture Projects.

mangoes are transported in the same lorry. Although the farmers who are members of a cooperative are trained on how to produce the mangoes adequately for processing, this problem occurs regularly. Because of the lack of a clear procedure, the lorries pick up mangoes from farmers that are not members of any of the two cooperatives. This means that mangoes are picked up from farmers who have not received training, which might explain the low quality of some mangoes when they arrive at the plant. In this way, the quality of the well-produced mangoes is compromised by the poorly produced mangoes. When the lorry arrives at the plant, the mangoes which can be processed are picked, while those that cannot be processed are rejected. The farmers are paid in accordance with the number of accepted mangoes. The low overall quality of the mangoes leaves the farmers with lower returns, even though their mangoes might not have been the ones that were produced poorly. This has evoked dissatisfaction about the plant among many farmers.[34] Furthermore, farmers have also complained about the long time it takes for the lorry to reach the plant, which disrupts the quality of the mangoes even further. The remote location of the plant and the poor road infrastructure towards the plant were mentioned as the factors responsible for this.[35] Moreover, the chairman of one of the cooperatives contracted to deliver to the plant explained that lorry drivers do not always honor contracts. This has, among other things, resulted in the lorry drivers arriving hours late or not arriving at all for picking up the mangoes, and in the drivers suddenly raising transportation fees because of the poor road infrastructure.[36] Also, the weighing of the mangoes takes longer than necessary, which is again not beneficial for the quality of the mangoes. In this situation, mango farmers blame the county government for lacking a business mentality.[37]

In addition to all that, the lack of adequate coordination diminishes the value of the set price the county government buys the mangoes at. Although the county government buys the mangoes at a fixed price of 50 Kenyan shillings per kilogram, they do not buy directly from the farmers. As the mangoes are bought from the cooperative, the cooperative can set the price at which they buy from the farmers. The fact that this was set at 15 Kenyan shillings has upset farmers in Makueni:

"We sell 1 kilogram at 15 shillings and yet, we hear that 1 kilogram is purchased at the plant for 50 shillings. Now we are wondering: is this difference all for the cost of transport?"[38]

Another farmer reported that the price of 15 shillings per kilogram was later set at 13 shillings per kilogram by the cooperative because of the low quality of the mangoes.[39] In this way, the fixed price set by the county government at the plant gate does not result in the farmers getting a fair price for their mangoes. Concludingly, the lack of adequate coordination among stakeholders regarding transportation to the MFPP has left a wide range of problems in Makueni's mango sector. Nevertheless, it must be noted that the mangoes the farmers sell to the plant would not have been sold otherwise. In any case, the fact that the ripe mangoes can now be sold to the plant is an improvement in comparison to the earlier situation.

6.2.3. Strengths and weaknesses of the Makueni government regarding the creation of an enabling environment for inclusive agribusiness in its mango sector

Besides direct involvement in the investment, the Makueni county government plays a major role in creating an enabling environment for agribusiness investments in the mango sector. The most important services that are provided in this respect are the farmer trainings by the county government extensionists. The extensionists train farmers on so-called good agricultural practices, cutting across

[34] Interviews 26 and 27: Mango farmers.
[35] Focus group 17: Mango farmers.
[36] Interview 19: Makueni Fruit Value Chain Investment Cooperative Society: Chairman.
[37] Focus group 17: Mango farmers.
[38] Interview 26: Mango farmer.
[39] Interview 27: Mango farmer.

from planting of the seeds to the marketing of the produce. In the case of the Makueni Fruit Processing Plant, the farmers are trained specifically on what type of mango to produce for the plant. The extensionists operate from lower levels of government: the sub-counties and the wards.[40] Operating from these levels has the advantage that farmers often know the extensionists personally or at least know where to find them, making these services accessible for farmers throughout the county.[41] The farmers are grouped into clusters of 10 to 25 people and approached by the extensionists whenever a new technology or farming method needs to be spread. The farmers are mainly trained on technical issues, such as seed planting, grafting, pruning, manure application, pest control, harvesting methods and storage methods. As mangoes in Makueni are partly grown for export, an important part of the trainings is to ensure that the mangoes are produced in such a way that they meet the requirements for certification. Moreover, farmers are being trained on environmental practices, like rainwater harvesting and not using chemicals. Climate-smart farming is also a component of this, which includes for instance the use of basin irrigation for production, in which a basin is made around the trees to where water is drawn and kept.[42] All farmers responded positively towards the trainings:

"First, I always bought the wrong trees. The people selling trees at the market in Wote do not care about the quality of the trees, they just wanted to sell. I did not know they were the wrong trees. In order not to buy the wrong trees, you should know the mother plant. Sellers of trees don't care. Now I learned to graft the tree for the best quality and productivity. When trained, the farmers have the knowledge."[43]

Furthermore, for some trainings, employees from the department of social services assist the extensionists, as they have specialized knowledge about training groups in coercion and providing gender-related trainings. The latter are mainly focused on family budgeting.[44] For 4 years, the county government has also had an Agricultural Training Centre (ATC) just outside of Wote, including a demonstration farm where farmers can learn how to plant, spray and prune. The ATC is mainly used for large-scale, countywide trainings, whereas the extensionists on the ward level can approach farmers in more remote locations.

Another enabling service the Makueni government provides is infrastructure. In terms of the road network in Makueni, the responsibilities of opening up and maintaining roads are classified. The National Ministry of Transport and Infrastructure is responsible for longer roads, especially those that cross different counties, while the rural roads are maintained by the Makueni Ministry of Roads, Transport and Energy. Regarding the mango sector, the roads towards the Makueni Fruit Processing Plant are all earth roads in poor condition and impassable during the rainy seasons. There are plans to connect both the plant and Makueni's capital, Wote, to the main Nairobi-Mombasa highway through a new tarmacked road. However, as this project is a national government function, the Makueni government can only focus on maintaining the rural roads.[45] Yet, the majority of rural roads in the county are in poor condition, which worsens the transportation problems concerning the processing plant.[46] Other infrastructure relevant for the mango sector is irrigation infrastructure. As an overreliance on rain-fed agriculture in combination with climate change has limited production, the county government deems an irrigation infrastructure necessary.[47] The county government is currently developing a seasonal irrigation plan along the main rivers in the county, targeting 10,000 Hectares

[40] Interview 16: Makueni Ministry of Agriculture, Livestock and Fisheries: Agribusiness Development Officer.
[41] Focus group 17: Mango farmers.
[42] Interview 21: Makueni County Ministry of Natural Resources, Environment and Climate Change: Chief Officer.
[43] Interview 26: Mango farmer.
[44] Interview 25: Makueni Sub-County: Agricultural Extensionists.
[45] Policy document 10: Makueni County Integrated Development Plan (CIDP) 2018-2022.
[46] Interview 19: Makueni Fruit Value Chain Investment Cooperative Society, Chairman.
[47] Interview 20: Makueni Ministry of Agriculture, Livestock and Fisheries: Director of Agriculture.

under irrigation.[48]At the moment, the areas to be irrigated are being mapped. The government aims to have at least 2,000 Hectares under irrigation in 2020. Where irrigation infrastructure is not yet available, farmers are trained on rainwater harvesting for irrigation, as mentioned before. A proper irrigation plan would potentially lead to better mango harvests across the county.

Besides infrastructure and trainings, the Makueni government provides several other extension services. One of these is the provision of agricultural inputs. For instance, when new certified seeds for mangoes are available, the county government may provide these to farmers for free or subsidized, often combined with demonstrations on how to use the seeds. Over the last year, 13,500 mango seedlings have been distributed to farmers. Certified fertilizers and pesticides are also provided by the county government, either subsidized or for free.[4950] The county government also provides access to credit for farmers through the so-called Theteka fund, which is accessible for both individual farmers and farmer groups. Farmers can borrow money interest-free from 15,000 up until 200,000 shillings. Another service in which the county government was involved is the establishment of three fruit tree nurseries in the county, one of which includes mangoes and was set up in August 2018.[51] The mango tree nursery is operated by members of the Makueni Fruit Value Chain Investment Cooperative Society and is jointly funded by the county government and the European Union. The tree nursery was established with the goal of improving the quality of the mangoes, and ultimately getting the mangoes GlobalGap certified. In this way, the mangoes would meet the requirements for export to the European Union in the near future.[52,53] Moreover, the Makueni government is active in providing information for farmers. The county government collaborates with the Kenyan meteorological department and the NGO Anglican Development Services (ADS) to provide weather information for through a local radio station.[54,55] Also, in collaboration with Safaricom, Kenya's main telecommunications provider, the county government is developing a phone application which is supposed to provide farmers weather information relevant to their agro-ecological zone and the corresponding crop varieties they could plant. Also, when the farmers encounter problems with a certain crop, they will be able to send a picture of their crop through the application. In this way, extensionists can assist them in overcoming the problem. Lastly, in an attempt to involve the youth in agriculture, the Makueni government employs young people as agricultural service providers. These service providers are equipped with motorized pumps and protective clothing. Farmers can hire them for a fee to do the pruning for them while they are away.[56] In brief, the government of Makueni executes a wide variety of development interventions, leading to a large number of strengths and a small number of weaknesses. An overview of the strengths and weaknesses of both the Makueni and the Nandi government is shown in Table 7.1, which is presented on page 55.

6.3. The contribution of the Makueni county government to SD through inclusive agribusiness

Section 6.2 has identified a multitude of strengths and weaknesses of the Makueni government with regard to inclusive agribusiness. Also, these strengths and weaknesses have proved to be a result of the development interventions undertaken by the Makueni government. Through these interventions, the government may contribute to sustainable development. Sustainable development, in this research, is defined by the three moral imperatives that Holden et. al. (2017) suggest: satisfying human

[48] Policy document 10: Makueni County Integrated Development Plan (CIDP) 2018-2022.
[49] Policy document 10: Makueni County Integrated Development Plan (CIDP) 2018-2022.
[50] Interview 20: Makueni Ministry of Agriculture, Livestock and Fisheries: Director of Agriculture.
[51] Focus group 17: Mango farmers.
[52] Observational visit 3: Mango tree nursery.
[53] Interview 19: Makueni Fruit Value Chain Investment Co-operative Society: Chairman.
[54] Interview 23: Anglican Development Services Eastern (NGO): Environmental Expert.
[55] Interview 21: Makueni Ministry of Natural Resources, Environment and Climate Change: Chief Officer.
[56] Interview 20: Makueni Ministry of Agriculture, Livestock and Fisheries: Director of Agriculture.

needs, ensuring social equity and respecting environmental limits. This section presents the contributions of the Makueni government to SD in accordance with the ISDH-model presented in section 2.5.3, starting with the contribution to satisfying human needs.

6.3.1. Contribution of the Makueni government to satisfying human needs in the county through inclusive agribusiness

In terms of satisfying human needs, the Makueni county government plays a major role in ensuring food security by actively stimulating the production of mangoes, for instance through the provision of seeds or the establishment of the MFPP. From mid-2017 until mid-2018, 13,500 mango seedlings were distributed to farmers in Makueni. Through such interventions, the number of mango trees in Makueni has risen to a total of 1,469,625, making Makueni the leading producer of mangoes in Kenya. Furthermore, 91% of mango trees have been planted in the last seven years. There is a large amount of mangoes being produced in Makueni, enough to feed the domestic market and the farmer families.[57] Although exact numbers have not been found, 70-80% of the mangoes in Makueni is estimated to be sold on the domestic market. In this way, the mangoes supplement the otherwise carbohydrate- and protein-rich diet of the local population.[58] In terms of interventions for raising returns, the spraying service provision has been indicated as an intervention that raises returns for several mango farmers. Instead of spending time on the farm spraying, farmers can use the time to earn an additional income to their farming activities.[59] In addition to that, the trainings on agronomic practices have led to an increase in productivity among farmers and ultimately a rise in their income.[60] The quantitative rise in income due to these interventions is, however, difficult to measure. Furthermore, the Makueni Fruit Processing Plant has improved the income of the farmers, as the mangoes that would otherwise be going to waste are now sold to the plant. Whereas mangoes were sold for between 5-10 Kenyan shillings per kilogram to brokers, the farmers now sell their mangoes for 13 shillings to the cooperative who organizes transportation to the plant. This means that the farmers experience a rise in returns of approximately 3-8 shillings per kilogram sold, which amounts to 30-160%. However, this rise has turned out far lower than intended due to the coordination and transportation problems mentioned in paragraph 6.2.2.[61] Also, it must be noted that the establishment of the plant has had a negative effect on the purchasing power in the area surrounding the plant, as land prices have risen there as a result of the establishment of the plant. Concludingly, the returns for mangoes have definitely been raised through county government interventions, although the effect should not be overstated.

Moving on to the topic of farmer trainings, these are given to farmer groups through the sub-county and ward levels of government.[62] In this way, the trainings are accessible even for farmers in the most remote locations of the county.[63] An estimated total of 10,000 farmers out of a total of 28,696 farmers have been trained from mid-2017 until mid-2018, amounting to approximately 35%.[64] The Makueni government has provided trainings on a total of 8 topics, touching on agronomy, environment and gender. The training topics include spraying, pruning, harvesting, rainwater harvesting, basin irrigation, IPM, manure application and family budgeting. Moreover, the Makueni government has started to provide additional trainings on GlobalGap compliance since last year, by demonstrations taking place

[57] Interview 12: Solidaridad East & Central Africa: Horticulture Program Manager.
[58] Interview 20: Makueni Ministry of Agriculture, Livestock and Fisheries: Director of Agriculture.
[59] Focus group 17: Mango farmers.
[60] Focus group 17 and interviews 26 and 27.
[61] Interviews 26 and 27: Mango farmers.
[62] Focus group 17: Mango farmers.
[63] Interview 25: Makueni Sub-County: Agricultural Extensionists.
[64] Policy document 14: Makueni County Programme-Based Budget 2018-2019.

at tree nurseries.[65] This has reduced the use of chemicals among the mango farmers in Makueni.[66] From mid-2017 until mid-2018, 5,055 farmers out of a total of 28,696 mango-producing farmers (about 18%) in Makueni were trained on how to comply with GlobalGap certification.[67] In summary, the Makueni county government plays a major role in satisfying human needs in the mango sector, through interventions for education, food security, food safety and to a lesser extent through return-raising interventions.

6.3.2. Contribution of the Makueni government to ensuring social equity in the county through inclusive agribusiness

Regarding social equity in the mango sector, the bottom-up manner of policy-making, described in section 6.2.3, make Makueni a success story in terms of public participation. While the devolution process to the sub-county and ward level has not been operationalized completely in most counties in Kenya, Makueni is one of the counties in which the operationalization of the lowest units of government and the introduction of public participation mechanisms through these levels has been successful.[68] The communities in the ward elect their representatives at ward level, who are supposed to write proposals to the county government for projects they would like to be implemented in their ward. Subsequently, public meetings are held at the ward level, often under a tree or in a church. During these meetings, the communities can contribute by giving their views on the proposals and bringing in new ideas. For example, through the first of these public meeting sessions in 2013, the community's idea of a mango processing plant reached the county government. The ideas are reviewed by the county government and, depending on their feasibility, either executed or rejected.[69] The county government is, by law, only allowed to budget a project when the need for such a project comes directly from the community. By law, the budgets need to be published. In this way, every county government intervention in Makueni requires to be initiated through a bottom-up decision mechanism and the government can be held accountable for its projects.[70]

Regarding the inclusivity of the government's extension services, it is unclear to what extent Makueni contributes to ensuring fair distribution. This is because the extensionist-farmer ratio in Makueni is, unfortunately, unavailable. However, as mango is a versatile crop, those who do not have access to water sources or irrigation can produce them. Also, the upcoming irrigation project targets marginalized farmers and the well-functioning sub-county and ward levels assist in reaching them and including them in decision-making.[71] Thus, it seems like Makueni has great potential for targeting marginalized communities. Concerning gender-related interventions, as it is deep-rooted culturally in Kenyan society that the majority of land belongs to men and mangoes require large pieces of land, county government delegates have explained that there is not much they can do to include women in mango farming or create any jobs in the sector for women. Although the county government does not create jobs for women, the Makueni government has created several jobs for youth in the mango sector. The Makueni Fruit Processing Plant is established in a remote location where unemployment was high and the youth especially marginalized, thus creating jobs for those who need it the most. [72] Generally, the county government stimulates young people to work in the agricultural sector, but not necessarily as farmers. This is because the land is often owned by their fathers. Instead, the county government has created jobs in, for example, spraying service provision, mango processing work in

[65] Interview 20: Makueni Ministry of Agriculture, Livestock and Fisheries: Director of Agriculture.
[66] Interview 22: RTI International (NGO): Field Agronomist.
[67] Policy document 11: Makueni Annual Development Plan (ADP) 2019/2020.
[68] Interviews 10 and 11: Tegemeo Institute of Agricultural Policy and Development: Policy and Devolution Specialists.
[69] Interview 15: Makueni Ministry of Devolution and Planning: Director of Public Participation.
[70] Interview 25: Makueni Sub-County: Agricultural Extensionists.
[71] Focus group 17: Mango farmers.
[72] Interview 25: Makueni Sub-County: Agricultural Extensionists.

the plant or transportation of mangoes to the plant.[73] This has resulted in a total of about 450 new jobs for youth.[74] In summary, the Makueni government contributes effectively to ensuring social equity through the creation of new jobs for youth in the mango sector and most likely also through an effective public participation mechanism, but interventions that target women are lacking.

6.3.3. Contribution of the Makueni government to respecting environmental limits in the county through inclusive agribusiness

In an effort to tackle the droughts and other environmental issues Makueni is facing, the county government has a ministry which focuses especially on natural resources, environment and climate change issues. Makueni is even the first county in Kenya to have established a set of climate change regulations, which steers the county government in how to tackle issues concerning climate change.[75] This ministry intends to mitigate climate change, by doing Environmental Impact Assessments (EIAs) for every planned intervention. The environmental impact of the processing plant, for example, has been assessed in this way. The assessments contain a wide range of possible environmental impacts, including impact on air pollution, loss of vegetation, ground water, soil erosion and waste disposal. Besides environmental impacts, EIAs in Makueni also consider social issues, including displacements of people, accidents, aesthetics, noise pollution and human health. It must be noted that the wide variety of EIA topics, 10 in total, has led to delays of projects in Makueni. The processing plant, for instance, did not meet the requirements for noise pollution at first, which led to the postponing of its establishment.[76] As for biodiversity protection, one component of the county government's trainings considers sensitization on the use of agricultural wastes as animal feed[77], so that it cannot harm aquatic, plant, animal or human life.[78] Also, Integrated Pest Management (IPM) is included in the trainings. The focus here is on controlling the pests rather than applying pesticides, making sure insects and other micro-organisms that are beneficial to the environment are able to thrive while the harmful ones are killed.[79] As both are included in the regular farmer trainings, the same amounts as in section 6.3.2. apply, meaning that about 10,000 out of 28,696 mango farmers, which is approximately 35%, have been trained between mid-2017 and mid-2018 on IPM and waste disposal. Moving on to the protection of water and land resources, the county government mainly plays a role in protecting water resources, as this is a major problem in drought-stricken Makueni. Trainings on sustainable land management are non-existent in Makueni. The main role in protecting water resources is in sensitizing farmers, again through the regular farmer trainings, on the use of rainwater harvesting or basin irrigation, instead of using more wasteful methods like sprinkler irrigation.[80] Simultaneously, these methods are a way to adapt to the increasing unpredictability of rainfall in Makueni, a result of climate change. The same can be said of the county government stimulating the production of mangoes, which is a drought-resistant crop.[81] Therefore, for the indicators on climate change adaptation and home irrigation, the same percentages apply as for the indicator on IPM and waste disposal. Conclusively, in terms of respecting environmental limits, the Makueni government efficiently contributes to SD through providing environmental trainings and conducting profound EIAs for every new project.

[73] Interview 20: Makueni Ministry of Agriculture, Livestock and Fisheries: Director of Agriculture.
[74] Policy document 14: Makueni County Programme-Based Budget 2018-2019.
[75] Policy document 12: Makueni County Climate Change Regulations.
[76] Interview 21: Makueni Ministry of Natural Resources, Environment and Climate Change: Chief Officer.
[77] Interview 21: Makueni Ministry of Natural Resources, Environment and Climate Change: Chief Officer.
[78] Policy document 11: Makueni Annual Development Plan (ADP) 2019/2020.
[79] Interview 12: Solidaridad East & Central Africa: Horticulture Program Manager.
[80] Interview 23: Anglican Development Services Eastern (NGO): Environmental Expert.
[81] Interview 21: Makueni Ministry of Natural Resources, Environment and Climate Change: Chief Officer.

7. Results IV: Nandi

In chapter 6, the first case study area has been discussed by examining its mandate on inclusive agribusiness, the performance on its mandate and its contribution to SD. In this chapter, the second case study area is discussed in the same order as the first. Starting off, section 7.1 presents Nandi's agro-ecological characteristics, its main challenges and inclusive agribusiness investments in the French beans sector.

7.1. Agro-ecological characteristics and the French beans sector in Nandi county

The county of Nandi is located in the highlands of Western Kenya. Like Makueni, it consists of six sub-counties which are further subdivided into 30 wards. A map of Nandi's sub-counties and its location within Kenya is presented in figure 7.1. The county headquarters is located in Kapsabet, the location of which is shown in figure 7.2. It has a cool, wet climate with rich volcanic soil, a diverse species of trees and high, reliable rainfall throughout the county. The Northern sub-counties receive the least amount of rainfall, as shown in figure 7.3, but even the amount of rainfall here is generally sufficient for horticultural production without using irrigation. These conditions imply that the county has a high potential for growing a wide array of agricultural crops, including French beans.[82] French beans is a relatively new crop in the area, typically grown for export and fetching high returns in comparison to other crops. Furthermore, the farmers have organized themselves in informal groups in the French beans sector, so that they can be able to transport the beans themselves. Brokers are non-existent in the French beans sector, as horticultural exporting company Meru Greens has contracted farmers in Nandi to supply them with French beans.[83] However, long transportation times between Nandi and Meru Greens' canning facility in the Export Processing Zone (EPZ) in Athi River, just outside of Kenya's capital city Nairobi, has resulted in post-harvest losses. Unstable markets have also been identified as a problem in the French beans sector. To counter these problems, a collaboration between the Nandi county government, Meru Greens and Dutch NGO SNV has led to the acquisition of a cold storage facility (CSF) in Lessos, Nandi County. The location of Lessos is shown in figure 7.2. The CSF was opened in July 2018 and allows French beans farmers to store their beans on a long term. In this construction, SNV and Meru Greens have jointly funded the CSF, while the Nandi county government is mainly involved by providing land and creating an enabling environment for French beans production. In the future, the county government of Nandi is planning to attract a Meru Greens canning plant to their own to-be-established EPZ, so that the entire process of value addition for French beans will take place within the county.[84]

7.2. Performance of the Nandi county government regarding inclusive agribusiness in the French beans sector

Nandi's agro-ecological characteristics, challenges and inclusive agribusiness investments in the French beans sector have been identified in the last section. In this section, the Nandi government's performance on its mandate is examined by identifying the strengths and weaknesses of the Nandi government in the French beans sector regarding the attraction of inclusive agribusiness, the coordination of stakeholders and the creation of an enabling environment respectively.

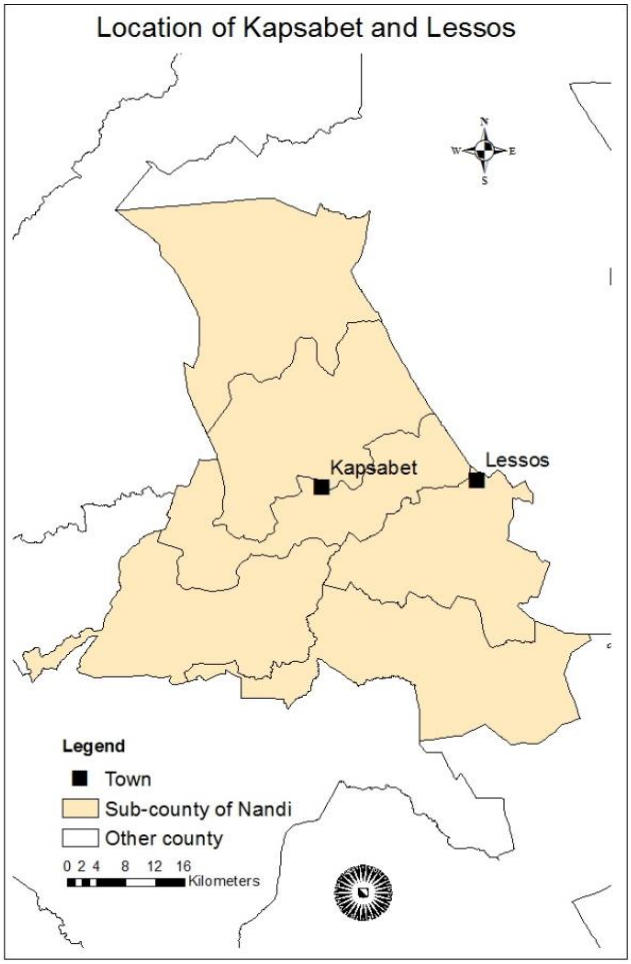
7.2.1. Strengths and weaknesses of the Nandi government regarding the attraction of inclusive agribusiness to its French beans sector

Regarding the attraction of agribusiness, the county government of Nandi mainly focuses on attracting agribusiness investments that create value addition, while taking a facilitating role. As for the CSF, a

[82] Policy document 14: Nandi County Integrated Development Plan (CIDP) 2018-2022.
[83] Interview 9: Tegemeo Institute of Agricultural Policy and Development: Horticulture Specialist.
[84] Policy document 14: Nandi County Integrated Development Plan (CIDP) 2018-2022.

Figure 7.1.: Sub-counties of Nandi.

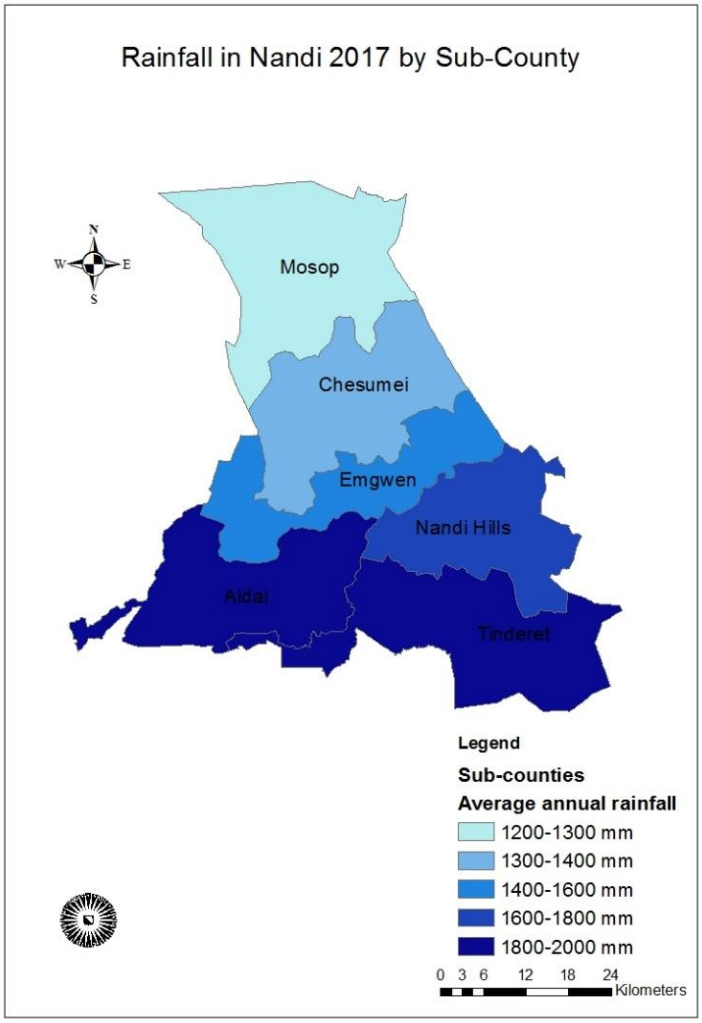
Figure 7.2.: Location of Kapsabet and Lessos.



construction was established in which the Nandi government granted Meru Greens a piece of land to build the CSF on, at no cost. In return, Meru Greens contracts farmers from Nandi to deliver to the CSF and provides extension staff to train the farmers on how to produce the French beans adequately. The provision of free land is, therefore, the main way in which the county government attracts agribusiness investments. However, in terms of identifying and communicating the potential of horticultural production to attract investments, Nandi does not seem to have a clear strategy. This is striking, since the climatic conditions in the county are favorable for a wide range of crops. In the case of the CSF, it was Meru Greens who approached the county government, instead of the county government attracting the investment.[85] On the upside, the Nandi government is involved in a process of creating an economic bloc of 10 counties in Western Kenya, the Lake Region Economic Bloc (LREB), with the goal of leveraging areas of comparative advantages and synergizing rather than competing each other. In this way, Nandi hopes to identify their niche compared to its neighboring counties and attract investments collectively.[86]

[85] Interview 29: Nandi Ministry of Agriculture: Director of Agriculture.
[86] Policy document 14: Nandi County Integrated Development Plan (CIDP) 2018-2022, p. 55.

Figure 7.3.: Average annual rainfall in Nandi.[87]



7.2.2. Strengths and weaknesses of the Nandi government regarding the coordination of inclusive agribusiness stakeholders in its French beans sector

To improve coordination of agribusiness stakeholders in Nandi's French beans sector, the Nandi government requires an MoU to be established between the stakeholders involved in the investment. In this way, there is a clear division of tasks among the stakeholders. Unlike Makueni, Nandi county does not organize investment forums. Coordination between stakeholders in an investment mainly takes place through stakeholder meetings. To align investment activities with the national policy agenda, intergovernmental forums are used, such as The Summit. It must be noted, however, that the investment construction in Nandi requires less coordination by the county government than the construction in Makueni, due to its facilitating nature.[88] Another challenge in terms of coordination, however, is between the county government extensionists and the Meru Greens extensionists. The Meru Greens extensionists train the farmers on how to adequately produce French beans for the CSF, while the county government extensionists train the farmers on production methods for horticultural crops in general. Although the tasks of the extensionists seem somewhat overlapping, they do complement each other. Due to inadequate and centralized funding for extension activities based at

[87] Rainfall data retrieved from Policy Document 14: Nandi County Integrated Development Plan (CIDP) 2018-2022.

[88] Interview 29: Nandi Ministry of Agriculture: Director of Agriculture.

the Nandi county headquarters, county government extensionists at the sub-county and ward levels have been disengaged from resources like transport and offices. Additionally, there is a shortage of county government extensionists in Nandi. As such, rather than duplicating the activities of the county government extensionists, the Meru Greens extensionists have been helpful in supplementing them. Conversely, the Meru Greens extensionists can use the local knowledge of the Nandi county extensionists, as the latter are often from the area and know most farmers personally. On top of that, farmers tend to trust county government extensionists more than private sector extensionists, as county government extensionists are from the area and know most farmers personally. County government extensionists are, therefore, important in building trust between farmers and the Meru Greens extensionists.[89,90]

7.2.3. Strengths and weaknesses of the Nandi government regarding the creation of an enabling environment for inclusive agribusiness in Nandi's French beans sector

As said, the main role played by the Nandi county government in creating an enabling environment for investments is through extension trainings on agricultural practices. The trainings are mainly on the harvesting and pest management and are provided on a regular basis. In addition to that, field days are held in demonstration farms near Kapsabet, which are free for farmers to visit. Nevertheless, the ratio of extensionists to farmers is low, meaning that not all farmers receive the help they need. Besides the shortage of extensionists, farmers have also complained about the low level of the trainings and the aging extension staff, who are often unaware of new technologies.[91] To improve this, the county government intends to capacitate their extensionists by providing agricultural extension manuals, inspection and monitoring and evaluation of extension service delivery. Furthermore, the Nandi government intends to approach universities and private sector partners, including Meru Greens, to complement their extension services.[92] These initiatives have, however, not been undertaken as of yet, except for the introduction of Meru Greens extensionists in the county.[93] The Nandi Ministry of Trade, Investment and Industrialization is active in providing occasional business trainings for farmers in the county during field days. These trainings focus on sensitizing farmers how to find a market for their produce and creating an entrepreneurial mindset. In this way, the county government attempts to stimulate the farmers to not only do the farming, but also the follow-up. Also, trainings on sustainable land and water management have been introduced during field days, in which farmers are taught on agroforestry, rainwater harvesting and on how to construct terraces for controlling soil erosion.[94] Lastly, during field days, farmers are being trained on how to prepare French beans for own consumption. This is because French beans are generally grown for export and are not traditionally eaten in Nandi, while they do have the potential to supplement the carbohydrate- and protein-rich diet.[95] These trainings are, however, only provided during occasional field days. They cannot be provided on a regular basis yet due to a lack of capacity.[96]

Furthermore, the county is active in providing access to irrigation through lending drilling machines to farmers.[97] Rainfall is abundant in the county, but in incidental dry periods, farmers may have to use irrigation methods. Through hiring a drilling machine, farmers can profit from the abundance of groundwater in the county, while not needing a permit as they can drill from their own land. As for irrigation from the river, no irrigation infrastructure is present, and permits are needed for individual

[89] Interview 30: Kepchunyuk Ward: Agricultural Extensionist.
[90] Interview 31: Nandi Hills Sub-County: Agricultural Extensionist.
[91] Focus group 34: Ol'lessos Ward: French beans farmers.
[92] Policy document 16: Nandi Agricultural Sector Policy draft.
[93] Interview 29: Nandi Ministry of Agriculture: Director of Agriculture.
[94] Interview 40: Nandi Ministry of Environment, Irrigation and Natural Resources: Director of Environment.
[95] Interview 30: Kepchunyuk Ward: Agricultural Extensionist.
[96] Interview 39: Nandi Ministry of Trade, Investment and Industrialization: Enterprise Development Officer.
[97] Observational Visit 6: County government's drilling machines for irrigation, to be rented by farmers.

irrigation. Any other plans for irrigation infrastructure are non-existent, as the high rainfall throughout the county makes the need for irrigation low.[98] Besides irrigation, the Nandi government is particularly active in providing rural road infrastructure. The Nandi government sees road infrastructure as pivotal to the county's economy and focuses in its road improvements specifically on linking farmers to markets, reducing the cost of doing business. The heavy rainfall has made the majority of roads impassable during the rainy seasons in the past[99], but the upgrading and maintenance of roads has led farmers to be able to bring their produce of French beans to the CSF themselves.[100] Several farmers have praised the improvements of rural roads over the latest years.[101]

Another service the county government of Nandi provides is information for farmers. As of now, information is provided through a set of guidelines for farmers on how to keep their produce within the food safety standards set by the Kenyan national government.[102] Plans also exist for introducing ICT platforms for providing information provision services, although these have not been developed yet. Like Makueni, the Nandi government intends to collaborate with Safaricom to develop such services.[103] Currently, the county government does not stimulate group forming of the farmers nor does it provide access to agricultural inputs or credits. The latter has left farmers especially dissatisfied, as costs of agricultural inputs are high and availability is low in certain areas of the county.[104] In summary, the Nandi county government has proved to be significantly less active in terms of development interventions in the French beans sector than the Makueni government is in the mango sector. This seems to be the major reason for the relatively weaker performance of the Nandi government on its mandate compared to Makueni. The strengths and weaknesses of both counties are outlined in Table 7.1. In this table, a minus sign indicates a weakness, whereas a plus sign indicates a strength.

Table 7.1.: Performance of the Makueni and Nandi county governments on their mandate regarding inclusive agribusiness.

Category	Performance of the Makueni government	Performance of the Nandi government
Attraction of inclusive agribusiness	• Providing an implementing service for the MFPP (+) • Identifying the potential of the county through agro-ecological zoning (+) • Communicating the potential of the county through investor conferences (+) • Unfavorable location of the county headquarters (-)	• Providing land (+) • No strategy for identifying the potential of the county (-) • No strategy for communicating the potential of the county (-) • Involved in the creation of an economic bloc (+)
Coordination of stakeholders in inclusive agribusiness	• Requiring MoUs for partnerships (+) • Organizing stakeholder meetings (+)	• Requiring MoUs for partnerships (+) • Organizing stakeholder meetings (+)

[98] Interview 40: Nandi Ministry of Environment, Irrigation and Natural Resources: Director of Environment.
[99] Policy document 15: Nandi Annual Development Plan 2018-2019.
[100] Interview 36: French beans farmers.
[101] Focus groups 34 and Interviews 35 and 37: French beans farmers.
[102] Interview: 29: Nandi Ministry of Agriculture: Director of Agriculture.
[103] Policy document 14: Nandi County Integrated Development Plan (CIDP) 2018-2022.
[104] Focus group 34: Ol'lessos Ward: French beans farmers.

	• Publishing reports on agribusiness activities in the county (+) • No coordination mechanism for county government and NGO extensionists (-) • No coordination on transportation to the MFPP (-)	• County government and Meru Greens extensionists collaborate and synergize each other (+) *Note: coordination is not as necessary in Nandi as it is in Makueni.*
Creation of an enabling environment for inclusive agribusiness	• Accessible farmer trainings (+) • Wide range of training topics (+) • Rural roads not maintained well (-) • Developing irrigation infrastructure (+) • Providing agricultural inputs and credits (+) • Providing tree nurseries (+) • Providing information services (+) • Providing spraying services (+)	• Shortage of extensionists (-) • Low level of trainings (-) • Trainings not provided on a regular basis (-) • Providing rural road infrastructure (+) • Providing information services (+) • Agricultural inputs or credits are not provided (-)

7.3. The contribution of the Nandi county government to SD through inclusive agribusiness

The strengths and weaknesses of the Nandi government with regard to inclusive agribusiness have been presented in section 7.2. The county government's interventions have mainly determined the strengths and weaknesses this section presents the analysis of the contribution to SD through its interventions. The contribution to SD is presented in terms of satisfying human needs, ensuring social equity and respecting environmental limits respectively.

7.3.1. Contribution to satisfying human needs in Nandi

Regarding its contribution to satisfying human needs in Nandi's French beans sector, the county government contributes to food security among farmers by providing trainings on how to prepare French beans for own consumption. However, the majority of interviewed farmers have said that they are unwilling to eat the French beans and purely produce them for export.[105] Furthermore, although French beans are not a component of the traditional local diet, the share of French beans sold on the domestic market has risen over the latest years. Of the 174 tons of French beans produced in the county from mid-2017 until mid-2018, 26 tons are sold domestically or eaten for own consumption, amounting to approximately 14%.[106] The rest of the beans is exported, after being canned in Meru Greens' plant in Athi River. Two of the interviewed farmers do eat the French beans that are rejected by the CSF.[107] In terms of interventions for raising returns, the attraction of the CSF to Nandi has had positive results. Since the establishment of the CSF, the French beans fetch high returns of 40 Kenyan shillings per kilogram, whereas the returns were only 8 to 12 Kenyan shillings when sold to brokers, before the establishment of the CSF.[108] This means that the farmers have experienced a rise in returns

[105] Focus group 34 and interview 35 and 37: French beans farmers.
[106] Policy document 18: Nandi County Programme-Based Budget 2018-2019.
[107] Focus group 34 and interview 36: French beans farmers.
[108] Focus group 34 and interview 35, 36 and 37: French beans farmers.

of 266-400%. Moving on to the topic of food safety, the Nandi government does not provide any trainings on GlobalGap compliance as of yet. Lastly, although trainings are offered, they lack both in quality and in quantity. From mid-2017 until mid-2018, only about 2,000 French beans farmers were trained in the county, of a total of approximately 109,000 French beans farmers.[109] This amounts to a mere 2% of French beans farmers having received training. The trainings are offered both through the sub-county and ward extension offices as well as through irregularly organized field days. The regular trainings touch on productivity, IPM and on turning agricultural waste into manure. The field days, however, do provide some specialized trainings which may have potential to improve farmer education in Nandi if expanded and standardized. These include trainings on 4 additional topics: sustainable land management, rainwater harvesting, nutrition and entrepreneurship. In a nutshell, the Nandi government predominantly contributes to satisfying human needs through facilitating the establishment of the CSF, that has greatly increased returns French beans farmers receive for their produce. Nevertheless, extensionist trainings lack both qualitatively and quantitatively, making the county's contribution to enhancing human capabilities negligible.

7.3.2. Contribution to ensuring social equity in Nandi

Regarding social equity in Nandi's French beans sector, the level of public participation is by far not as high as in Makueni. Although the people do elect their own representatives at the lower levels of government, any other public participation mechanisms are non-existent and the decision-making process for interventions in Nandi is centralized at the county level.[110] This means that the percentage of interventions initiated through a public participation mechanism is 0. With respect to the inclusivity of farmers in county government extension services, French beans farmers can access the extensionists in their wards, but the extensionist-farmer ratio is, as said before, insufficient. As one extensionist is available per 638 farmers, the Nandi government is far below the FAO-recommended ratio of one extensionist per 400 farmers. However, it must be noted that since the establishment of the CSF, about 40 Meru Greens extensionists have been introduced to assist their county government counterparts.[111] These extensionists specifically train the farmers that are contracted by Meru Greens to deliver French beans to the CSF. In this way, at least all the farmers delivering to the CSF are receiving trainings. With regard to employment creation, the CSF itself has barely created any jobs which particularly target youth and women, except for 2 jobs created for youth and 4 for women in the management of the CSF and weighing of the French beans.[112] In brief, the county government of Nandi inadequately contributes to ensuring social equity on almost every aspect.

7.3.3. Contribution to respecting environmental limits in Nandi

Moving on to respecting environmental limits, EIAs are generally not executed by the Nandi government, as this is left to the National Environmental Management Authority (NEMA), a national environmental institution. Regarding biodiversity, the county government does provide information on IPM and on turning agricultural waste into manure through its regular trainings. Both the percentage of French beans farmers receiving trainings on IPM and the percentage of those receiving trainings on waste disposal is 2. In addition to that, environmental trainings are given during field days, touching on sustainable land management and rainwater harvesting. Trainings on climate change adaptation are barely present in Nandi either, except for the trainings on rainwater harvesting during field days. This is because climate change has barely affected the rainfall in the county.[113] However, the environmental trainings are constrained to occasional field days instead of being given on a regular basis. For this reason, the percentage of farmers trained on sustainable land management, home

[109] Policy document 18: Nandi County Programme-Based Budget 2018-2019.
[110] Policy document 14: Nandi County Integrated Development Plan (CIDP) 2018-2022.
[111] Policy document 14: Nandi County Integrated Development Plan (CIDP) 2018-2022.
[112] Interview 32 and 33: Cold storage operator and Meru Greens technical advisor.
[113] Interview 40: Nandi Ministry of Environment, Irrigation and Natural Resources: Director of Environment.

irrigation and climate change adaptation is considered 0. In summary, the Nandi government barely plays a role in contributing to respecting environmental limits in the county. A comprehensive list of all contributions of the Makueni and Nandi governments to SD is presented in Table 7.2.

Table 7.2: Contributions of the Makueni and Nandi county governments to SD.

Theme and Indicator	Contribution of the Makueni government	Contribution of the Nandi government
Satisfying human needs: Percentage of crops sold on the domestic market or used for own consumption through interventions	70-80% of the mangoes produced in Makueni are sold on the domestic market or used for own consumption through a stimulation in mango production.	About 14% of the French beans produced in Nandi are sold on the domestic market or used for own consumption.
Satisfying human needs: Percentage rise in returns for farmers' produce through interventions	Returns for mangoes have risen by 30-160% due to the establishment of the MFPP. However, the rise has turned out far lower than intended due to the coordination and transportation problems.	Returns for French beans have risen by 266-400% due to the establishment of the CSF.
Satisfying human needs: Percentage of farmers trained	35% of mango farmers have been trained from mid-2017 until mid-2018 by county government extensionists.	2% of French beans farmers have been trained from mid-2017 until mid-2018 by county government extensionists.
Satisfying human needs: Number of training topics	Mango farmers are being trained on 8 topics, touching on agronomy, environment and gender. Additionally, trainings on GlobalGap compliance are provided.	French beans farmers are being trained on 3 topics: productivity, IPM and waste disposal. Occasional field days offer trainings on an additional 4 topics.
Satisfying human needs: Percentage of farmers trained on GlobalGap compliance	18% of mango farmers were trained on GlobalGap compliance by county government extensionists.	0% of French beans farmers were trained on GlobalGap compliance by county government extensionists.
Ensuring social equity: Percentage of interventions initiated through public participation mechanism	As the Makueni government only starts new projects that have undergone the bottom-up decision-making procedure, 100% of interventions is initiated through the public participation mechanism.	As the Nandi government does not have a public participation mechanism and decisions are made centrally, 0% of interventions are initiated through the public participation mechanism.
Ensuring social equity: Extensionist-farmer ratio.	Unavailable, but the public participation mechanism and the versatility of mangoes seem to allow for the inclusion of marginalized communities.	1:638, which is below the FAO-recommended ration of 1:400.

Ensuring social equity: Amount of jobs created for women through interventions	No jobs for women have been created in the mango sector by the Makueni government.	4 jobs have been created for women in management of the CSF and weighing of the French beans.
Ensuring social equity: Amount of jobs created for youth through interventions.	450 jobs have been created for youth in spraying service provision, mango processing work or transportation of mangoes to the plant.	2 jobs have been created for youth in weighing of the French beans.
Respecting environmental limits: Percentage of projects assessed through EIAs.	100%, as EIAs are executed for every new project.	0%, as EIAs are left to the National Environmental Management Authority (NEMA).
Respecting environmental limits: Number of EIA topics	Projects are assessed on 10 topics, both of an environmental and a social nature.	0, as EIAs are not executed by the county government.
Respecting environmental limits: Percentage of farmers trained on home irrigation	35% of mango farmers have been trained on home irrigation from mid-2017 until mid-2018 by county government extensionists.	0% of French beans farmers are trained on home irrigation on a regular basis, although occasional trainings on this topic are offered during field days.
Respecting environmental limits: Percentage of farmers trained on sustainable land management.	0% of mango farmers are trained on sustainable land management by county government extensionists.	0% of French beans farmers are trained on sustainable land management on a regular basis, although occasional trainings on this topic are offered during field days.
Respecting environmental limits: Percentage of farmers trained on IPM.	35% of mango farmers have been trained on IPM from mid-2017 until mid-2018 by county government extensionists.	2% of French beans farmers have been trained on IPM from mid-2017 until mid-2018 by county government extensionists.
Respecting environmental limits: Percentage of farmers trained on waste disposal.	35% of mango farmers have been trained on waste disposal from mid-2017 until mid-2018 by county government extensionists.	2% of French beans farmers have been trained on IPM from mid-2017 until mid- 2018 by county government extensionists.
Respecting environmental limits: Percentage of farmers trained on climate change adaptation.	35% of mango farmers have been trained on climate change adaptation from mid-2017 until mid-2018 by county government extensionists.	0% of French beans farmers are trained on climate change adaptation by county government extensionists.

8. Results V: Contextual factors

Chapter 7 has identified the contributions of two Kenyan county governments to SD through their interventions regarding inclusive agribusiness. Table 7.2, that summarizes the contributions, reveals that the contributions of the two county governments differ significantly. To account for these variations, this chapter presents an analysis of contextual factors in Nandi and Makueni that influence their contributions to SD. Firstly, the influence of two previously discussed contextual elements, institutional and political quality and agro-ecological characteristics, is explained. Secondly, the discourses of the two counties and their origin are analyzed and the influence of the discourses on the county government contributions to SD are explained.

8.1. The role of institutional and political quality and agro-ecological characteristics

Table 8.1. shows that there are wide variations in the contributions of the two county governments to SD. Most strikingly, except for the increase of farmer returns through the facilitation of the CSF, the Nandi government barely makes any substantial contribution to SD. The Makueni government, on the other hand, contributes to SD on a variety of topics. The difference is a result of the number of interventions by both governments. Whereas the Makueni government is exceptionally active in terms of development interventions, the Nandi government takes a more passive stance, as discussed in sections 6.2 and 7.2. As a result of its passive stance, the Nandi government is barely able to contribute to SD, as section 7.3 indicates. An explanation for the lack of interventions in Nandi in this regard is that the human capacity in the Nandi government is simply lower than in the Makueni government. The variation in human capacity between counties, as explained in section 4.2, is indeed a major institutional challenge in Kenya, instigated by design faults in the decentralization process. It is, therefore, quite possible that a variation in human capacity exists between the Makueni and Nandi government. Frankly, Nandi's CIDP actually indicates a low human capacity:

"County government extensionists at the sub-county and ward levels have been disengaged from resources like transport and offices. Additionally, the ratio of extensionists to farmer in Nandi is 1:638, which is a long way from the FAO-recommended ratio of 1:400."[114]

The fact that the ratio of extensionists to farmers is insufficient means that either there is a lack of trainers available, or the county government management has been inadequate. The latter is certainly true for the extensionists being disengaged from essential resources. Therefore, it is highly likely that a lack of human capacity is present in Nandi. On top of that, Nandi's County Governor has been accused of mismanagement of public funds by his overseeing Senator (Standard Digital Entertainment, 2018), as he had employed young ladies at the expense of qualified personnel. This indicates behaviors of patronage by the County Governor of Nandi, negatively affecting the county's ability to execute development interventions. Political quality, therefore, has proved to be a determining factor for the inactivity of the Nandi government. On the contrary, the governor of Makueni has played a major role in initiating the devolution process when he was still working at the national government. A deputy of the Kenyan Ministry of Devolution and Planning explained:

"Because he has [partly] designed the devolution measures himself, he has been able to implement the measures very well in Makueni. Also, he has been governing the county all the time since the devolution."[115]

[114] Policy document 14: Nandi County Integrated Development Plan (CIDP) 2018-2022.
[115] Interviews 14: Kenya Ministry of Devolution and Planning: Devolution & Agriculture Officer.

This explanation indicates a high level of continuity and leadership in Makueni, suggesting a high level of human capacity. Thus, there is a significant difference between the human capacity of the Makueni and the Nandi government, leading to varying contributions to SD. As indicated in section 4.2., the variation in human capacity between county governments is because of design faults in the decentralization process. Therefore, the institutional and political quality of the Kenyan government system is a factor that influences a county's development interventions and ultimately influences its contribution to SD.

A secondary explanation for the relative inactivity of the Nandi government, particularly regarding climate change issues, is the difference in agro-ecological profile of the two counties. The relatively high amount of rainfall in Nandi makes it practically unnecessary to provide any climate change-related services, while Makueni experiences increased periods of drought due to climate change. As a result, the Makueni government has even mentioned "Climate Change" in one of their ministries: The Ministry of Natural Resources, Environment and Climate Change. Additionally, the Makueni county government has established, as one of the first counties in Kenya, a set of internal regulations for combating and adapting to climate change. This indicates the difference in importance attached to climate change between the Nandi and Makueni government regarding climate change, explaining the difference in activity regarding climate change-related interventions between the two counties. Therefore, the agro-ecological characteristics of a county is a contextual factor that influences the amount of development interventions by a county government, ultimately affecting its contribution to SD.

8.2. Makueni: the complexity discourse

In Makueni, a complexity discourse on SD can be identified. Complexity, in this regard, is defined as sustainable development being increasingly seen as "a pathway to all that is good and desirable in society" (Holden et. al., 2014; p. 130), similar to the aforementioned notion of Holden et al. (2014). This view includes the idea that a long list of seemingly far-fetched elements have been associated with sustainable development (Banister, 2008; Holden & Linnerud, 2007), of which the Sustainable Development Goals (SDGs) provide the ultimate example. With an unprioritized amount of 17 SDGs, 169 targets and 303 indicators, the risk of achieving secondary goals without achieving the primary ones is high (Holden et. al., 2017; Stafford-Smith, 2014; Stokstad, 2015). In other words: the concept of sustainable development has become increasingly complex. For this reason, the discourse on SD identified in Makueni has been dubbed 'the complexity discourse'. The interviews with county government officials in Makueni provided several indications that far-fetched elements are associated with sustainable development. For example, at the Makueni Ministry of Natural Resources, Environment and Climate Change, an interviewee explained that noise pollution was included in the EIAs:

"Besides air pollution, we are looking at noise pollution. We address noise pollution by a noise meter, because lots of people are noisy, because of parties and churches."[116]

Noise pollution, of course, is an issue that is generally considered undesirable in society. By including it in the EIAs, the Makueni government implicitly associates noise pollution with environmental sustainability, thus also with sustainable development. However, besides a small effect on biodiversity in certain areas, human noise barely has any relation with the natural environment (Kight & Swaddle, 2011). Therefore, it seems inappropriate to include noise pollution in EIAs or consider it as an aspect of sustainable development at all, as it only adds to the complexity of the concept. Another indication

[116] Interview 21: Makueni County Ministry of Natural Resources, Environment and Climate Change: Chief Officer.

of the presence of the complexity discourse in the Makueni government was given at the Ministry of Agriculture, Livestock and Fisheries:

"In our trainings, we used to only address technical issues, but now we are giving farmers the full package. Not only pruning, manure application, chemicals.. now we have trainings on family budgeting, rainwater harvesting, how to operate as a group, the entrepreneurship side of things. So we are able to play a larger role in development of the rural areas."[117]

From the above, the conclusion that farmer trainings in Makueni are made increasingly comprehensive is easily drawn. This implies that the county government designs their trainings on the notion of sustainable development as a pathway to all that is desirable in society. Thus, the complexity discourse on SD that is present in the county government of Makueni seems to affect its interventions. This is perhaps even better illustrated by the county government's major intervention in the mango sector: the Makueni Fruit Processing Plant. Not only was the establishment of the plant postponed because it did not meet the requirements for noise pollution[118], the county government's desire to address a long list of elements associated with SD has also led to other problems. Although countering post-harvest losses and low prices were the main issues to be tackled[119], the plant has simultaneously been used to address a wide range of other issues in the mango sector, including unemployment, exclusion of youth, a lack of technical knowledge among farmers and unpredictable markets. The Makueni government has attempted to construct the division of responsibilities among stakeholders involved in the plant in such a way that all of the issues mentioned would be addressed. Nonetheless, this construction has resulted in coordination problems, as explained in paragraph 6.2.2. Ultimately, these problems have hindered the amount of mangoes acceptable for processing and the returns the farmers receive for their mangoes, although the construction has led to employment opportunities, involvement of youth and an increase in knowledge on adequate mango production among farmers. In other words, post-harvest losses and low prices, the main issues to be tackled, are currently not addressed sufficiently by the plant, while issues like unemployment, the involvement of youth and a lack of technical knowledge among farmers are. Therefore, the plant is indeed achieving secondary goals without achieving the primary ones, a major risk of the concept of SD becoming increasingly complex (Holden et. al., 2017; Stafford-Smith, 2014; Stokstad, 2015).

On the other hand, the desire by the county government to address a wide variety of issues simultaneously requires a creative approach. Interventions like spraying service provision, a bottom-up decision-making mechanism and even the establishment of a self-managed processing plant are all interventions that are fairly unique in Kenya[120] and indicate the creativity of the Makueni county government. The spraying service provision and decision-making mechanism have led to positive contributions to sustainable development in the mango sector. Even the plant, although it has failed to sufficiently address its primary issues of focus, has contributed to sustainable development in the mango sector in other areas, such as climate change adaptation and the creation of employment. On top of that, creativity is mentioned as one of the county's core values.[121] The complexity discourse may, therefore, have instigated a sense of creativity that has led the Makueni government to contribute successfully to secondary sustainable development goals.

The origin of the complexity discourse might be explained by looking at the most powerful person in the county: the Governor. When he announced the county government's Vision 2025, he commented:

[117] Interview 20: Makueni Ministry of Agriculture, Livestock and Fisheries: Director of Agriculture.
[118] Interview 21: Makueni Ministry of Natural Resources, Environment and Climate Change: Chief Officer.
[119] Interview 29: Nandi Ministry of Agriculture: Director of Agriculture.
[120] Interview 2: Kenya National Ministry of Agriculture: Director of Horticulture.
[121] Policy document 10: Makueni County Integrated Development Plan (CIDP) 2018-2022, p. 2.

"The vision embodies relevant components of sustainable development goals including the fight against poverty, hunger and food insecurity, illiteracy, inequality and disparities, climatic degradation and social conflicts."

Standard Digital Entertainment (2016)

Furthermore, when the Governor signed a partnership with UN-Habitat in January 2019 to stimulate sustainable development in the county, he commented:

"When we began negotiations last year, we had a list of many things, but slowly it has been easy."
Government of Makueni (2019)

Both comments indicate that the Governor's personal notion of sustainable development is similar to that of the complexity discourse, in which sustainable development is also seen as a pathway to 'many things'. In order to institutionalize his views on sustainable development, he joined the Muungano Party. This is a small political party that apparently shares his notion of sustainable development, as they attribute seemingly far-fetched issues like ethnic conflicts, corruption and crime to SD (Muungano Party, 2019). Also, the lack of an enforcement mechanism for county government requirements, described in section 4.2., grants the Governor a great amount of power. Because of this, the Governor of Makueni has managed to trickle down his views on sustainable development to his county government, resulting in the complexity discourse. In that respect, the institutional quality of the Kenyan government system plays a facilitative role in determining the discourse of the Makueni government. In summary, the institutional challenges of the Kenyan government system allow the Makueni Governor's notion of sustainable development to be trickled down to the county government, leading to a complexity discourse on SD. This discourse has ultimately allowed secondary sustainable development goals to be achieved without achieving primary goals.

8.3. Nandi: the neoliberal discourse

In the Nandi county government, a 'neoliberal discourse' has been identified. This discourse is based on the assumption that agribusiness interventions are most successful in contributing to sustainable development when undertaken by the private sector, with minimal influence of the government. In this discourse, economic growth is central to sustainable development. The private sector is viewed as the driver towards sustainable development, as they provide the economic efficiency required to make interventions sustainable. Furthermore, the discourse includes the notion of a 'technological fix': the idea that all sustainable development issues can be solved by new technologies operated through the market (Hopwood et. al., 2005). Interviews with county government delegates and policy documents have led to the formation of this discourse. Particularly indicative for the discourse is the explanation of a county government extensionist for the fact that the CSF is managed by Meru Greens, a private sector partner:

"It is successful here. A government is not good at doing business. The (cold storage) facility is efficient because it is operated by the private sector. And the county government wants to benefit its people, so it is just creating the right environment, so that the private sector can be efficient. If the government runs the facility, it will not be sustainable in the long run, because it is not efficient and the facility will not be profitable."[122]

By stating that the CSF needs to be run by the more efficient private sector to be profitable, the extensionist implies that economic efficiency is a condition in order for an intervention to contribute to sustainable development. An indication for the neoliberal discourse was also found in the official

[122] Interview 31: Nandi Hills Sub-County: Agricultural Extensionist.

mission of the county government of Nandi, as in the County Integrated Development Plan (CIDP) 2018-2022:

"Improve the living standards of all residents of Nandi County by offering quality and sustainable services in an equitable and transparent manner through modern technology, innovation, enhanced workforce, environmental sustainability and entrepreneurship in all spheres of life."[123]

The fact that entrepreneurship, modern technology and innovation are mentioned as focus points of the Nandi government stresses the significance the county government attaches to the role of technology and the private sector in contributing to sustainable development. Furthermore, as a minimal influence of the government is desired, the county government only plays a minor role in creating an enabling environment for agribusiness. The services that the county government does provide are, among others:

"Trainings on entrepreneurship skills, fostering an entrepreneurial climate … to support desired developments within the county."[124]

By providing these trainings, although irregularly, the county government actively encourages farmers to be entrepreneurs, with the goal of giving the private sector an impulse. Such an intervention fits the notion of the neoliberal discourse that the private sector is the driver of sustainable development. Moreover, stimulating technology and innovation is widely mentioned throughout the CIDP as a development priority, fitting the notion of a technological fix. Its neoliberal discourse on SD explains why the county government of Nandi has taken a facilitative role in its partnership regarding the CSF. When viewing the private sector as the major driver towards sustainable development, a facilitative role by the county government through the provision of land and a management role for Meru Greens seems to be an obvious division of responsibilities. Likewise, the neoliberal discourse may explain why the county government has by far not been as active in creating an enabling environment as the county government of Makueni. As a result of the Nandi government's inactivity, French beans farmers have complained about the low availability of trainings and the unavailability of agricultural inputs and credits through the county government. This has impaired the contribution of the Nandi county government to sustainable development. On the contrary, the neoliberal discourse has led the Nandi government to leave the management of the CSF to Meru Greens, allowing for efficient management and eventually leading to a drop in post-harvest losses and a rise in returns for farmers. In this way, the neoliberal discourse has shaped the county government's approach in such a way that primary goals have been achieved. On that account, the neoliberal discourse seems to have both negative and positive influences on development interventions, allowing the government to achieve primary goals, but limiting its wider contribution to SD.

Similar to the situation in Makueni, it seems that the County Governor of Nandi has a major influence on the discourse taken on in the county government. The Governor is a member of the Jubilee Party. This political party is the most powerful party in Kenya. It emerged in 2016 as a result of the joining of 12 right wing parties. The party has a strong neoliberal foundation, as expressed in the party's official vision:

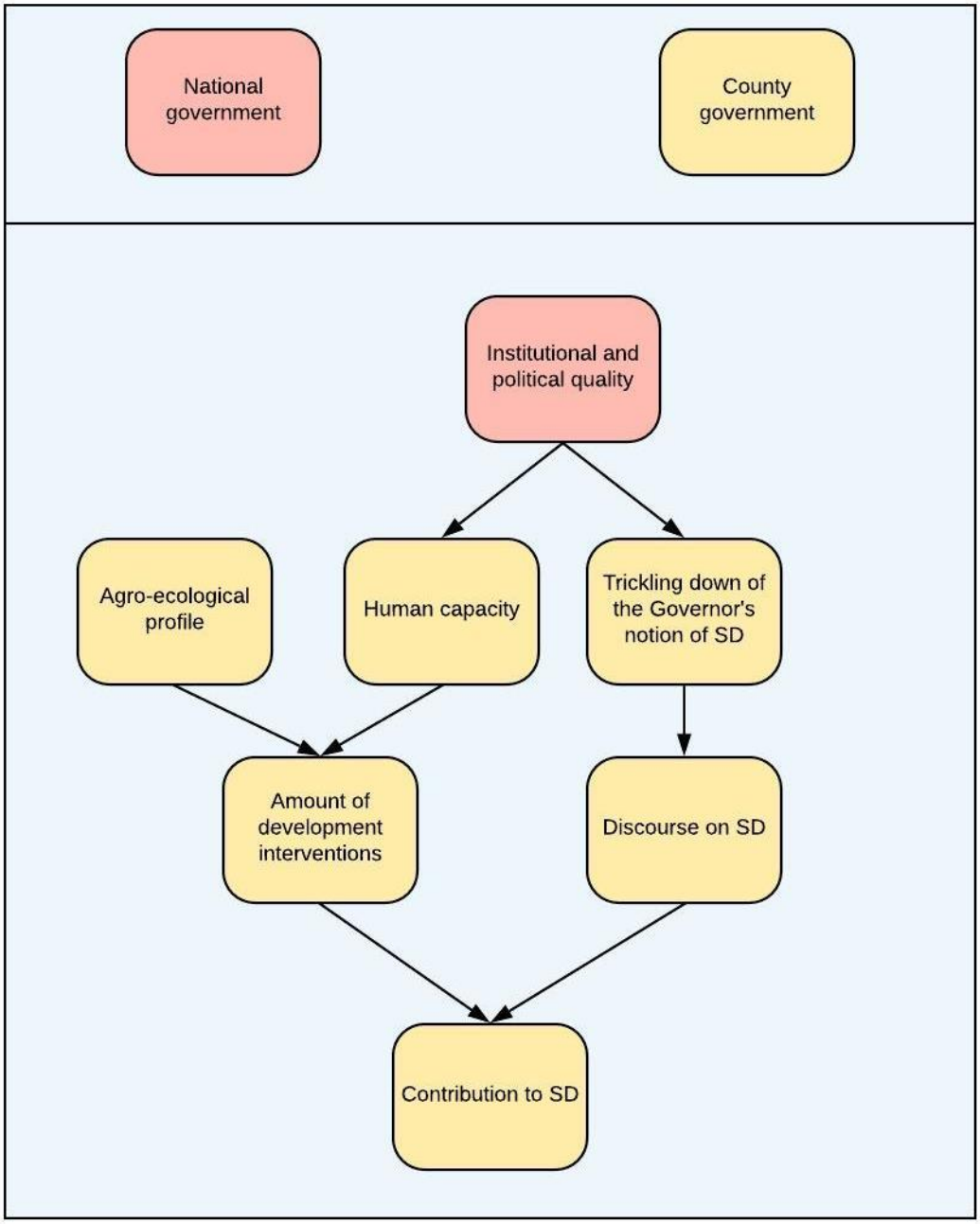
"We recognize that a secure and prosperous nation is built on solid foundations … in which people can provide for themselves and be assured of a brighter future. … We will work towards high, rapid and inclusive economic growth".

Daily Nation (2017)

[123] Policy document 14: Nandi County Integrated Development Plan (CIDP) 2018-2022, p. 2.
[124] Policy document 14: Nandi County Integrated Development Plan (CIDP) 2018-2022, p. 55.

This vision indicates the neoliberal notion of the party that economic growth is central and that people should provide for themselves, hinting to a minimal influence of government. Since the County Governor of Nandi is a member of this party, it is highly likely that he has neoliberal views on sustainable development. Again, the lack of an enforcement mechanism for county government requirements allows the Governor to trickle down his views to the county government. This has led the Nandi county government to take on a neoliberal discourse in SD, which has allowed it to achieve primary goals, while limiting its wider contribution to SD. Concludingly, both in Nandi and in Makueni, the institutional challenges of the Kenyan government system allow the Governor's notions of sustainable development to be trickled down to the respective county governments, determining their discourses on SD. This has ultimately influenced their contributions to SD. Figure 8.1 illustrates the contextual factors that account for the Makueni and Nandi governments' varying contributions to SD.

Figure 8.1.: Contextual factors influencing the Makueni and Nandi governments' contributions to SD.



9. Discussion

9.1. Decentralization in the Global South: a pathway to sustainable development?

Although it is increasingly recognized that local governments should play a major role in achieving sustainable development (Graute, 2016, Geissel, 2009; ICLEI, 2012), their actual role in contributing to SD is barely researched in academia. The results of this research, however, have shown numerous ways in which local governments in the Global South can contribute to sustainable development through inclusive agribusiness, meaning that this research reinforces the claim that local governments have great potential to contribute to SD. Since the role of local governments in contributing to SD has mostly been disregarded in the academic literature thus far, this conclusion is undeniably striking and insightful. The results have also indicated that contextual factors play a major role in shaping local government's contribution to SD. This reinforces the aforementioned ideas of Cabral (2011) that contextual factors are crucial to development outcomes of local government interventions. Both the contextual factors relating to the counties as well as those relating to the Kenyan government system have been analyzed in this research. These contextual factors allow for a more accurate generalization to the Kenyan national context as well as to the context of the Global South in general. On the county level, for instance, the discourses of the Makueni and Nandi governments on SD have proven to be decisive factors, as well as the agro-ecological characteristics of the counties. Accordingly, when generalizing findings to the Kenyan national context, it must be noted that a county governments' discourse on sustainable development, instigated by its governor's notion of the concept, influences its approach and ultimately its contribution to SD. A county's agro-ecological profile further shapes its approach and contribution to SD.

Furthermore, this research has identified influential factors relating to the Kenyan government system. Despite the disparities in development outcomes between counties, decentralization in Kenya is regarded with optimism. Most oft-occurring challenges regarding decentralization reforms and local-central relations have not been present in Kenya. Firstly, the notion that African national governments would opt for devolution reforms only to create weaker institutional units in an attempt to defuse ethnic tensions (Crook, 2003), does not hold true for Kenya. A more robust form of decentralization has taken place here compared to other African countries, including extensive administrative, fiscal and political reforms. Furthermore, the decentralization in Kenya is different from other countries in the Global South, particularly in Africa, in the sense that it has actually been implemented, including effective fiscal, political and administrative decentralization reforms (Cabral, 2011), instead of being informally arranged. The challenges of informally arranged local-central relations, notably national politicians favoring their home localities (Johnson, 2001), are therefore non-existent in Kenya. What is present in Kenya, however, is local elite capture. Johnson (2001) already noted that such behavior by local elites is often a result of flaws in decentralization programs. This is, unfortunately, also the case in Kenya, where design faults in the decentralization process have allowed local elites to engage in wasteful expenditure of public resources. As explained in section 8.1, such practices have obstructed development interventions from taking place in Nandi, negatively affecting their contributions to SD. Furthermore, as described in section 2.1., Cabral (2011) observed that institutional challenges often result in a lack of power in decision-making for local governments in Sub-Saharan Africa. Institutional challenges, in the case of Kenya manifested by design faults in the decentralization process and a resulting variation in human capacity between counties, have indeed proved to be influential in the contribution of county governments to SD in Kenya. Therefore, when generalizing findings of this research to the Global South, not only the form and implementation of a country's decentralization should be taken into account, but also the institutional and political quality of government systems may lead to varying results between countries. Moreover, as this research only includes two case studies in one country, it is highly likely that other contextual factors exist that may influence local government contributions to SD, both on the national and the local level. In summary, although local

governments have great potential for contributing to SD through inclusive agribusiness, whether decentralization can instigate successful contributions to SD is highly dependent on the national as well as the local context.

9.2. What role for local governments in inclusive agribusiness models?

Although Rodriguez-Pose & Cols (2017) and Wang et. al. (2013) already noted that local governments may have great potential to play a role in inclusive agribusiness models, research on this role is underrepresented in the academic literature. This research has, however, identified a wide variety of roles local governments can play. This has implications for the academic literature on inclusive agribusiness models. The Makueni and Nandi cases have presented two different roles a local government can play in inclusive agribusiness. In Nandi, the government played a more distant, facilitative role, while in Makueni, the government played a more demanding role, including the management of the MFPP. Both cases have shown their strengths and weaknesses. The Makueni case, for instance, has proven that local governments can successfully create an enabling environment for inclusive agribusiness. This is because they are well-connected with farmers, as a result of a profoundly implemented decentralization to the lower units of government. In this way, local governments could be a crucial component of inclusive agribusiness models through the provision of, for example, trainings, agricultural inputs, credits and services to farmers. Makueni has also shown that local governments can be valuable for inclusive agribusiness models by identifying the potential of a locality. In this way, it can inform stakeholders on what sectors require inclusive agribusiness interventions. On the downside, even though Makueni has a high human capacity, their inefficient management of the MFPP has proved to impair the plant's contribution to sustainable development. Thus, the Makueni case has shown that it is questionable whether local governments can take on a management role in inclusive agribusiness models. The Nandi case, on the other hand, has played only a minor role in inclusive agribusiness in its French beans sector. Nevertheless, it has proved that local governments can facilitate inclusive agribusiness by the provision of government land. On top of that, both the Nandi and Makueni cases have shown that local governments can play a role in the coordination of stakeholders, for example by organizing stakeholder meetings.

However, as this research has indicated, the type of role the local government should take on in an inclusive agribusiness model depends heavily on the national and local context. As for the national context, the institutional and political quality of the national government system has proven in this research to be an influential factor. Institutional challenges may lead to varying human capacities among local governments. Those local governments with a low human capacity are most likely unable to play a major role in inclusive agribusiness models. For example, the Nandi government has not been successful in the creation of an enabling environment for inclusive agribusiness due to its lack of human capacity, whereas the more capacitated Makueni government has. Regarding local context, a local government's discourse on sustainable development and its agro-ecological characteristics have been found influential in their approach towards inclusive agribusiness. In summary, the ideal role for local governments in inclusive agribusiness models is best to be determined per case, as national and local context determine what role a local government is likely to be able to play.

9.3. Implications for the ISD-model

Besides its implications for local government interventions, the findings of this research feed back into the ISD-model by Holden et. al. (2017). As the framework has only recently been developed, it has barely been tested as an analytical framework for academic research. This research has proven that the ISD-model is not merely a grand theory on sustainable development, but it is also applicable as a framework for different types of research on government interventions. By being adaptable to the horticultural context, the local level and to the qualitative design of this research, the model has proven its flexibility. Regarding the fact that the model was initially created as a policy guidance framework, the use of the model as an analytical framework in this research reinforces the claim that

the model is flexible. Furthermore, the ISD-model's subdivision of dimensions into themes and indicators has allowed this research to analyze the county governments with a substantial level of depth. If the less profound 3P-model would have been used, the more specific results might not have been identified, for example those on the use of EIAs or on the decision-making mechanisms of the county governments.

Nonetheless, this research has also shed light on a number of shortcomings of the ISD-framework. Firstly, the lack of an economic dimension in the model limits the research. Of course, an economic dimension would not correspond to the normative values and the constraints on human behavior on which the ISD-framework is based. It should, as Holden et. al. (2017) appropriately argue, therefore not be included in the sustainable development space. However, the fact that the Makueni Fruit Processing Plant is not managed inefficiently by the county government and its economic sustainability is under pressure, for example, impairs the county government's contribution to SD. Therefore, although economic sustainability is justifiably not included in the definition of the sustainable development space itself, this research has proven that it is important as a condition for staying within the space. Hence, including economic sustainability as a condition, rather than as a dimension of the sustainable development space itself, would enhance the practical utility of the model. In this way, the normative values on which the framework is based would be made applicable to a predominantly capitalist society.

Secondly, this research has shown that the different dimensions of development cannot be viewed in isolation. It must be noted that social and natural systems are not seen as separate entities in the ISD-framework. This is illustrated by the fact that it uses a set of constraints instead of pillars, rendering trade-offs impossible. However, despite Holden et. al. (2017)'s intention to provide an explicitly integrated framework, the framework does not allow for analysis of the complex interlinkages within and between the dimensions. An example of interlinkages within the human needs dimension is that GlobalGap trainings may increase the income of the mango farmers in Makueni, as compliance with GlobalGap is a condition for export to certain regions. Regarding interlinkages between dimensions, climate change adaptation interventions, such as trainings on rainwater harvesting, may help farmers to increase productivity and ultimately increase their income. In this way, an intervention in the environmental limits dimension may have an effect on the human needs dimension. Such interlinkages are not accounted for in the ISD-framework. Thus, while the establishment of a sustainable development space has provided some form of integration by disallowing trade-offs between the dimensions, the framework only provides static indicators which are, in reality, thoroughly interconnected. Frankly, the negligence of these interlinkages has been a major point of critique on the popular three-pillar model (Holden et. al., 2017), which the ISD-framework has apparently failed to address. Concludingly, although the framework is profound and flexible, its theoretical shortcomings limit its utility as an analytical framework.

9.4. Bridging positivist and interpretivist approaches

In terms of methodology, this research has taken an innovative approach by combining positivist and interpretivist methods of data analysis. While some authors have suggested that these methods are not fundamentally at odds and can be complementary (Clarke, 2009; Lin, 1998; Roth & Mehta, 2002), a combination of both methods is rarely opted for in academic research. Particularly in international development research, empirical findings are often highly context-bound (Smith, 2005), making contextual understanding of findings crucial. Complementing positivist approaches with interpretivist approaches would allow for contextual understanding, while retaining a solid empirical basis. Although some post-development scholars (e.g. Escobar, 2000; Acosta, 2013) have increased the popularity for interpretivist approaches in international development research, such approaches have mainly been used in isolation as a critical counterweight against the 'mainstream' positivist approaches (Escobar, 2015). This research, however, has shown that the two approaches can be used in conjunction and

may even synergize each other. In this research, the use of a content analysis, a positivist method, has provided insights in how local governments can contribute to sustainable development, while the use of a CDA, an interpretivist method, has allowed the identification of contextual factors that play a role in shaping local governments' contribution to SD. The latter has created contextual understanding that has allowed for a more accurate generalization of findings in paragraph 10.1, adding an extra layer of theoretical density to the research. This research, therefore, advocates for the incorporation of interpretivist approaches into mainstream international development research by combining them with positivist approaches, as opposed to viewing the two approaches as fundamentally at odds.

9.5. Limitations

As every research, this research inevitably has its limitations. As the methodological limitations are widely discussed in paragraph 4.6.2., this paragraph will solely consider the theoretical limitations and the limitations relating to the results. A first theoretical limitation is the lack of an economic dimension of analysis. Holden et. al. (2017) explicitly excluded this dimensions from the ISD-framework. In an attempt to retain the normative values of the framework, the economic dimension was excluded from this research as well. This has generated a disregard for the economic sustainability concerns of the Makueni Fruit Processing Plant. The county government has proved to be an ineffective manager of the plant. In its current state, the way the plant is managed has culminated in a failure to achieving its primary goals regarding sustainable development. Because of the inefficient management, it is questionable whether the MFPP will continue to exist in the long term. Thus, the plant's economic sustainability is under pressure, which is a concern of major importance for various stakeholders involved. In spite of the urgency of the issue, the theoretical framework used for this research does not allow for an analysis of the economic dimension. Hence, this research does not include an analysis of the economic sustainability of either the MFPP or the CSF. However, the disregard of an economic dimension has allowed space to delve deeper into the dimensions that were used, which has led to a high level of theoretical density. On top of that, the high level of theoretical density has led to an identification of what impaired local government contributions to SD. For example, the fact that the MFPP did not contribute optimally to higher returns for farmers has been a result of the inefficient management of the plant. Hence, the ISD-framework has sufficient depth to allow an identification of economic causes to some extent, even without including an economic dimension in the framework itself.

A second theoretical limitation is that it is hard to indicate to what extent this research has truly retained the normative values of the framework, since an adapted version of the original ISD-framework has been used. It is, for instance, questionable whether the theme 'Adapting to climate change', which was included in the adapted framework, conforms with the normative values of the ISD-framework. This is because the theme does not comply with the philosophy of the ISD-framework that sustainable development comprises a set of constraints on human behavior. Climate change adaptation is, of course, not a constraint, but a response to a constraint that has already been exceeded. Nonetheless, it was imperative to include this theme, as both the academic literature and the PRI indicated it as an important aspect of inclusive agribusiness in horticulture. If the theme would not have been included, valuable results on this topic might not have been found. It must also be noted that, because of its qualitative nature, this research has not measured whether constraints have been exceeded or not. Instead, it has focused on how local governments interventions contribute to SD. Consequently, it was deemed more important for this research to include an important horticultural theme than to comply as exactly as possible with the philosophy of the ISD-framework.

Besides theoretical limitations, this research has limitations that relate to the results. Firstly, it must be clarified that the amount of interventions by county governments is not an indicator of the total development activity in the county, as the nongovernmental and private sector may also execute development interventions in the county. On its turn, this might influence the amount of interventions

by the county government. For example, if the private sector would be highly active in Nandi, government interventions would be superfluous. If this were the case, this would explain the lack of county government interventions in Nandi. Nevertheless, the level of private and nongovernmental activity would require an additional collection and study of private sector data that was not feasible within the time limits of this research. Despite the fact that private and nongovernmental activity have not been analyzed, a wide number contextual factors have explained the difference in activity between the Makueni and the Nandi county government. This has created dense theoretical evidence that the difference in activity is not simply a result of, hypothetically, varying private sector and nongovernmental activity in the two counties.

Secondly, it is questionable whether certain contributions to SD can be fully attributed to county government interventions. For example, the rise in returns for French beans farmers in Nandi, as a result of the establishment of the CSF, has been attributed to the county government. However, the county government only played a facilitative role in the establishment of the CSF, making it questionable to what extent they should get credit for the rise in returns. Nonetheless, as the CSF would not have been established without the provision of land, the rise in returns has been attributed to the Nandi government. A second example is the percentage of crops sold on the domestic market or used for own consumption in Nandi. Because the Nandi government has played a minor role in stimulating the French beans sector, except for their role in the establishment of the CSF, it is questionable whether this percentage can be attributed to the government. This indicator has therefore been interpreted carefully. On the contrary, the Makueni government has played a major role in stimulating mango production. As mango farming started off after the start of the government's interventions in the sector, it is safe to say that the high percentage of crops sold on the domestic market or used for own consumption in Makueni can be attributed to the county government.

9.6. Recommendations for further research

As this research is exploratory in nature, its findings imply several recommendations for further research. Firstly, this research has pointed out the importance of context. In addition to that, it has proposed a methodological approach through which contextual factors can be derived. As such factors have proven to be decisive in shaping local governments' contributions to SD through inclusive agribusiness, it is imperative that they are mapped through further research. Since this research only includes two case studies in one country, it is highly likely that other contextual factors exist that may influence local government contributions to SD, both on the national and on the local level. A number of such factors have been identified by this research, but further investigation may reveal additional, perhaps highly pivotal, contextual factors. Ultimately, it may allow for more accurate predictions on whether inclusive agribusiness models that include local governments are likely to be successful. Secondly, a recommendation for further research is to conduct an in-depth analysis on local government run-agribusiness investments, such as the Makueni Fruit Processing Plant. Constructions in which local government run such agribusiness investments are rare in the Global South, but could potentially be a way to increase local ownership of investments. Therefore, even though the somewhat complex management construction of the Makueni government did not yield the desired results, it is worth exploring whether slightly different government-run constructions have the potential to contribute to SD effectively. For instance, as cooperatives have complicated the management construction of the MFPP, it would be worthwhile to investigate whether government-run agribusiness investments without any third parties are more effective in contributing to SD.

9.7. Practical recommendations

This research has identified several ways in which local governments can contribute to SD through inclusive agribusiness. The findings imply several recommendations for local governments in the Global South as well as for inclusive agribusiness models. Firstly, local governments have proven to have great potential for playing a role in inclusive agribusiness models, as explained in section 9.2.

Furthermore, though depending on the context, they have proved to be able to effectively contribute to sustainable development through this role. Inclusive agribusiness investors are therefore advised to seek partnerships with local governments in the Global South. Nonetheless, the local and national context should strongly be taken into account when deciding on a role for local governments in inclusive agribusiness models, as this determines what role they are likely to be able to play. As for local governments, they are recommended not to outsource tasks in the management of agribusiness projects to cooperatives. Cooperatives have, as mentioned before, proven to complicate agribusiness investments, making them inefficient. In Makueni, this has led to a partial failure in achieving primary sustainable development targets. Excluding cooperatives from the investments prohibits them, or any other third parties, to lower their prices, source from untrained farmers or complicate the project in any other way. This would give local governments increased control over the investment, allowing them to actually achieve set targets. Lastly, local governments are advised to implement decentralization measures up until the lowest units of government, as this creates connections with farmers, even those from marginalized communities. This would ease the process of including smallholder farmers in agribusiness investments.

10. Conclusion

Through analyzing the contributions of two Kenyan county governments to sustainable development through inclusive agribusiness as well as identifying the contextual factors that influence these contributions, this thesis has provided novel insights on how local governments in the Global South can contribute to sustainable development. The two county governments analyzed have shown different results in terms of their approach to inclusive agribusiness and their contributions to sustainable development. Combining both results leads to a range of successful practices. To begin with, the Makueni government has shown that local governments can play a major role in satisfying human needs through the creation of an enabling environment for agribusiness. By providing subsidized agricultural inputs, county governments can contribute to food security, while trainings on agronomic practices may positively impact both food safety and education. Furthermore, a facilitative role in inclusive agribusiness models in high-value crops, such as the one taken on by the Nandi government, has proven to be an effective way to raise incomes. With regard to ensuring social equity, the Makueni government has shown that a bottom-up decision-making mechanism is an effective way to improve public consultation and participation. Furthermore, the Makueni government has shown that an inclusive agribusiness investment, such as the MFPP, may create jobs for women and youth, thereby contributing to ensuring social equity. Moreover, local governments can contribute to respecting environmental limits by assessing the environmental impact of inclusive agribusiness projects through EIAs, stimulating the production of drought-resistant crops for inclusive agribusiness, providing drilling machines for irrigation and provide environmental or climate change-related trainings to protect biodiversity, water and land resources, while simultaneously ensuring climate change adaptation.

However, whether a local government can contribute to sustainable development is shaped by its context. What has proved to be crucial to the contribution of a county government to sustainable development is its discourse on the concept. For example, the complexity discourse of the Makueni government has complicated its approach on managing the MFPP, leading to a failure in achieving the primary goals of the intervention. On the other hand, the discourse has encouraged the Makueni government to adopt a creative approach in addressing sustainable development issues, which has led to several interventions that contributed to SD. The discourse taken on by a local government is mainly a result of its governor's notion on sustainable development. Besides the discourse on SD local governments adopt, institutional and political quality has proved to be a decisive factor in the contribution of county governments to sustainable development. For instance, design faults in the Kenyan decentralization process have resulted in wide variations in human capacity between local governments. In Makueni, the human capacity has been higher than in Nandi. This has, for instance, allowed the Makueni government to contribute more effectively to SD than the Nandi government. On top of that, the agro-ecological characteristics of regions influence its local government's approach on issues such as climate change. Summarizing, through using both a positivist and an interpretivist approach, this research has provided new insights both on the manners in which local governments in developing countries can contribute to SD through inclusive agribusiness and on the contextual factors that may shape their contribution. Thus, the combination of approaches has allowed the creation of in-depth knowledge that is sensitive to national and local contexts. Such knowledge is crucial for determining the potential of local governments in contributing to SD, as well as for the design of inclusive agribusiness models, and, therefore, direly needed in the attempt to achieve inclusive growth in the Global South.

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Appendix I: Interview guide

Introduction

- Introduce myself and the research.
- Ask the interviewee to introduce him/herself (Name, occupation).
- Ask to record the interview.

Topics for sub-question 1 (unstructured)

- Tasks assigned to county governments concerning agribusiness investments in horticulture.
- Responsibilities of other stakeholders concerning agribusiness investments in horticulture.
- Coordination of responsibilities between the different stakeholders.

Topics for sub-question 2 (unstructured)

- Performance of county governments on attracting agribusiness investments.
- Performance of county governments on implementing agribusiness investments.
- Performance of county governments on coordination of stakeholders involved in investments.

Sub-question 3 (semi-structured)

- Human needs.
  Role of the county government in:
  - Ensuring food and nutrition security regarding agribusiness investments.
  - Raising income regarding agribusiness investments.
  - Implementing food health and safety regulation.
  - Improving farmer education and establishing farmer field schools.
- Social equity.
  Role of the county government in:
  - Ensuring consultation and participation regarding agribusiness investments: mechanisms for the community to give their view on projects.
  - Reducing income inequality regarding agribusiness investments.
  - Reducing gender and youth inequality regarding agribusiness investments.
  - Creating employment regarding agribusiness investments.
- Environmental limits.
  Role of the county government in:
  - Using EIAs and regulation regarding agribusiness investments. Ensuring quality of EIAs: Frequency of the EIAs, topics of assessment.
  - Stimulating climate change adaptation strategies regarding investments: Notably climate change adaptation trainings.
  - Protecting biodiversity regarding agribusiness investments.
  - Respecting land and water resource rights regarding agribusiness investments.

Appendix II: List of respondents

No.	Date	Place	Organisation	Profession	Data collection method	M/F
1	14-10-2018	Skype	SNV Kenya	Project manager HortIMPACT	Stakeholder interview	Female
2	17-10-2018	Nairobi	Kenyan Ministry of Agriculture	Head of the Horticulture Department	Stakeholder interview	Male
3	17-10-2018	Nairobi	Kenya Investment Authority (KenInvest)	Senior Research, Policy & Planning Officer	Stakeholder interview	Male
4	17-10-2018	Nairobi	Kenya Investment Authority (KenInvest)	eRegulations project coordinator	Stakeholder interview	Male
5	18-10-2018	Nairobi	National Land Commission	Commissioner	Stakeholder interview	Female
6	19-10-2018	Nairobi	Kenya Institute for Public Policy Research (KIPPRA)	Policy Analyst at the Governance Division	Expert interview	Male
7	23-10-2018	Nairobi	SNV Kenya	Advisor HortIMPACT project	Stakeholder interview	Female
8	23-10-2018	Nairobi	SNV Kenya/Delphy	Senior Consultant Crop Protection Horticulture	Stakeholder interview	Male
9	24-10-2018	Nairobi	Tegemeo Institute of Agricultural Policy and Development, Egerton University	Research Fellow; Horticulture specialist	Expert interview	Male
10	24-10-2018	Nairobi	Tegemeo Institute of Agricultural Policy and Development, Egerton University	Research Fellow; Policy specialist	Expert interview	Male
11	24-10-2018	Nairobi	Tegemeo Institute of Agricultural Policy and	Research Fellow, Devolution specialist	Expert interview	Male

			Development, Egerton University			
12	30-10-2018	Nairobi	Solidaridad East & Central Africa	Horticulture Program Manager	Stakeholder interview	Male
13	1-11-2018	Nairobi	Kenya Ministry of Devolution and Planning	Devolution & agriculture Officer	Stakeholder interview	Female
14	2-11-2018	Nairobi	Kenya Ministry of Devolution and Planning	Chief Devolution & Agriculture Officer	Stakeholder interview	Male
15	5-11-2018	Wote	Makueni County Ministry of Devolution and Planning	Director Public Participation	Stakeholder interview	Female
16	5-11-2018	Wote	Makueni County Ministry of Agriculture	Agribusiness Development Officer	Stakeholder interview	Male
17	6-11-2018	Wote	Member farmers of MFVCICS	Mango farmers	Focus group	4 Male, 3 Female
18	6-11-2018	Kalamba	Makueni Fruit Processing Plant	Manager Makueni Fruit Processing Plant	Stakeholder interview	Male
19	6-11-2018	Wote	Makueni Fruit Value Chain Investment Co-operative Society (MFVCICS)	Chairman and Treasurer	Stakeholder interview	2 Male
20	7-11-2018	Wote	Makueni County Ministry of Agriculture	Director of Agriculture	Stakeholder interview	Male
21	7-11-2018	Wote	Makueni County Ministry of Natural Resources, Environment and Climate Change	Chief Officer, Natural Resources, Environment and Climate Change	Stakeholder interview	Female
22	7-11-2018	Wote	RTI International, Africa Regional Office	Field Agronomist	Expert interview	Male
23	7-11-2018	Wote	Anglican Development Services (ADS) Eastern Kenya	Environmental Expert	Expert interview	Male
24	8-11-2018	Wote	Makueni County Fruit Processors Co-Operative Society (MCFPCS)	Chairman	Stakeholder interview	Male
25	8-11-2018	Wote	Makueni County Ministry of Agriculture, Makueni Sub-County	Agricultural Extensionists	Stakeholder interviews	2 Male
26	8-11-2018	Wote	Farm	Mango farmer	Stakeholder interview	Male
27	8-11-2018	Wote	Farm	Mango farmer	Stakeholder interview	Female
28	9-11-2018	Machakos	Solidaridad East & Central Africa	Field coordinator Horticulture projects	Expert interview	Male
29	19-11-2018	Kapsabet	Nandi County Ministry of Agriculture	Director of Agriculture	Stakeholder interview	Male

30	19-11-2018	Lessos	Nandi County Ministry of Agriculture, Kepchunyuk Ward	Agricultural Extensionist	Stakeholder interview	Male
31	19-11-2018	Lessos	Nandi County Ministry of Agriculture, Nandi Hills Sub-County	Agricultural Extensionist	Stakeholder interview	Male
32	19-11-2018	Lessos	Meru Greens	Cold Storage Operator	Stakeholder interview	Female
33	19-11-2018	Lessos	Meru Greens	Technical Advisor Nandi County	Stakeholder interview	Male
34	20-11-2018	Lessos	Ol'lessos Ward	French beans farmers	Focus group	4 female, 4 male
35	20-11-2018	Lessos	Farm	French beans farmer	Stakeholder Interview	Male
36	20-11-2018	Lessos	Farm	French beans farmer	Stakeholder Interview	Male
37	20-11-2018	Lessos	Farm	French beans farmer	Stakeholder Interview	Female
38	21-11-2018	Kapsabet	Nandi County Ministry of Trade, Investment and Industrialization	Trade & Rural Infrastructure Officer	Stakeholder interview	Female
39	21-11-2018	Kapsabet	Nandi County Ministry of Trade, Investment and Industrialization	Enterprise Development Officer	Stakeholder interview	Male
40	21-11-2018	Kapsabet	Nandi County Ministry of Environment, Irrigation and Natural Resources	Director of Environment	Stakeholder interview	Male
41	21-11-2018	Kapsabet	Nandi County Ministry of Sports Tourism and Co-operative Development	Director of Co-operative Development	Stakeholder interview	Male
42	22-11-2018	Kapsabet	Agricultural Sector Development Support Programme (ASDSP), Nandi County Office	ASDSP Coordinator Nandi County	Stakeholder interview	Male
43	4-12-2018	Nairobi	GIZ	Food Security Officer	Expert interview	Male
44	4-12-2018	Nairobi	GIZ	Good Governance Officer	Expert interview	Male
45	17-12-2018	Athi River	Meru Greens	Monitoring and Evaluation Officer	Stakeholder interview	Male

Appendix III: List of policy documents

No.	Organisation	Name of document	Year of issue
1	Kenya Ministry of Devolution and Planning	Policy on Devolved System of Government	2016
2	Kenya Ministry of Agriculture	Agricultural Sector Development Strategy (ASDS) 2010-2020	2009
3	Kenya Ministry of Agriculture	Agricultural Sector Development Support Programme II (ASDSP II)	2017
4	Kenya Ministry of Agriculture	Agricultural Sector Development Support Programe II (ASDSP II): Implementation Framework	2017
5	Kenya Ministry of Agriculture	National Horticulture Policy	2012
6	Kenya National Council for Law Reporting	Constitution of Kenya	2010
7	Kenya National Council for Law Reporting	County Governments Act	2016
8	Kenya Ministry of Environment and Forestry	National Climate Change Action Plan 2018-2022	2018
9	Kenya Ministry of Agriculture	Kenya Climate Smart Agriculture Strategy 2017-2026	2017
10	Government of Makueni County	Makueni County Integrated Development Plan (CIDP) 2018-2022	2018
11	Government of Makueni County	Makueni Annual Development Plan (ADP) 2019/2020	2018
12	Government of Makueni County	Makueni County Climate Change Regulations	2015
13	Government of Makueni County	Makueni County Vision 2025	2016
14	Government of Makueni County	Makueni County Programme-Based Budget 2018-2019	2018
15	Government of Nandi County	Nandi County Integrated Development Plan (CIDP) 2018-2022	2018
16	Government of Nandi County	Nandi Annual Development Plan (ADP) 2018/2019	2017
17	Government of Nandi County	Nandi Agricultural Sector Policy Draft	2018
18	Government of Nandi County	Nandi County Programme-Based Budget 2018-2019	2018

Appendix IV: List of observational visits

No.	Date	Place	Visited
1	6-11-2018	Kalamba	Makueni Fruit Processing Plant
2	8-11-2018	Wote	Mango farms
3	8-11-2018	Wote	Mango tree nursery
4	19-11-2018	Lessos	Cold storage facility for French beans
5	20-11-2018	Lessos	French beans farms
6	21-11-2018	Kapsabet	County government's drilling machines for irrigation, to be rented by farmers
7	17-12-2018	Athi River	Meru Greens canning factory

Appendix V: NVivo Code tree for Sub-Question 2