*Follow the food project*
*MSc Thesis Research*

# Inclusive Business and Food Nutrition Security in Ethiopia:

## *A case study on the contributions of six Dutch inclusive agribusinesses to Food Nutritition Security in Ethiopia*

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Fair& Sustainable ETHIOPIA

Rome,
October, the 3rd 2018.

Joint Degree Master's Thesis
MSc Sustainable Development -
International Development Track
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*Cover Photo: an Ethiopian Butcher slicing meat in a traditional shop, in Addis Ababa.*

## Summary

Today, about 4,5 billion are living in poverty worldwide. Theorists of inclusive business approach have claimed that such group of people represent an asset to businesses to scale company operations while contrasting poverty. This approach is expected to play a critical role in reconnecting private sector with public, civil actors in the fight against global poverty. Businesses can fight poverty by establishing a double bottom line for profit and poverty reduction goals. Consequently, inclusive business approach found an extensive space in the agendas of development agencies, and international organizations and non-governmental organizations. This model is expected to yield large benefits to poverty reduction worldwide. Yet, researchers have come to criticise this approach and evidences suggest that inclusive business projects are not operationalized without difficulty.

One of the burdens of poverty is food insecurity, that is the impossibility to access nutritions foods needed to conduct an healthy life. Food insecure people across the world are about 900 million individuals. It will not be possible in the incoming years to feed a spiking global population without drastic measures to reform food supply chains. In Ethiopia, food insecurity is a recurrent catastrophe; in 2015/2016, 28 millions Ethiopians became suddenly food insecure due to climatic variability.

In this study, an experimental company scan had been used to build a case study analysis of six Dutch-funded agribusinesses and their contributions to increased FNS in Ethiopia. This research addressed the research question: **How do different Dutch inclusive agribusiness investments contribute to FNS for Ethiopian nationals?** The NL is chiefly active in Ethiopia to support national development; within Dutch cooperation policy, Ethiopia is one of the candidates for the Aid and Trade Approach, which aims to support poverty reduction via a foreign private sector development. Contributions of different firms spans to the whole spectrum of FNS, *i.e food availability, accessibility, use and utilization and stability.* Yet, Dutch agribusinesses could hardly mitigate the most pressing issues to the FNS status of Ethiopian nationals, and waged labour opportunities had been found to poorly contribute to FNS.



**Key words:** Food security, Inclusive business, IAB scan, Case study, FDI, Dutch agribusiness

## Acknowledgements

First of all, I would like to thank my supervisor, dr. Ellen Mangnus, for accepting me in the *follow the food project.* Working with you had been an incentive to devote one minute more to my work, instead of minute less. I really hope this work may lead you to interesting results for the *project.* Secondly, I would like to thank professor van Westen for its challenging feedbacks and the contacts you provided me with during fieldwork. The fact of being under your wing had really opened up doors to this research. Thirdly, I would like to thank all the professors at UNIgraz, as it would have been impossible to conduct this research without the notions about sustainable business management, that I have earned during the mobility semester. Also, I want to direct a special thank to the people at Fair & Sutainable. You had gifted me with your time and I hope this research will pay that back to you, somehow.

Next, I would like to thank my one and extended family. All of you, you have always supported me along this two years path, without you this research would not have happened. Also, I want to thank new and old friends, those who I met in Addis Ababa, and who showed me what it means to live in Ethiopia. Those who are in Utrecht, and have made my whole experience significant. And those who were not, because you supported and sustained through never ending phone calls. Thank you for that.

Lastly, I would like to thank Matilde. You are the example of future generations to whom, we hope to leave a better world. Thank you for reminding me that.

Thank you all,
Edoardo.

*Rome*, Italy.

*List of Abbreviations*

ADB - Asian Development Bank
AfDB - African Development Bank
APHLIS - African Post Harvest Losses Information System
BoP - Bottom of the economic Pyramid
CSA - Ethiopian Central Statistical Agency
EKN - Embassy of the Kingdom of the Netherlands in Addis Ababa.
ENTAG - Ethiopia-Netherlands Trade for Agricultural Growth
EPHLIS - Ethiopian Public Health Institute
ETB - Ethiopian BIRR
FAO - The Food and Agriculture Organization of the United Nations
FDOV - The Facility for Sustainable Entrepreneurship and Food Security
FNS - Food and Nutrition Security
FSRE Fund - Food Security and Rural Entrepreneurship Fund
GDP - Gross domestic product
GTP I - *Growth & Transformation Plan I* (2010-2015)
GTP II - *Growth & Transformation Plan II* (2015-2020)
IB - Inclusive Business
IAB scan - Inclusive agribusiness scan
Kcal - Kilocalories
LMI - Low-Middle Income
NL - The Netherlands
NGO - Non governamental organization
PSI - The Private Sector Investment Programme
SSA - Sub Saharan Africa
USD - United States Dollars
WFP - World Food Programme

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# 1 Introduction

The societal background of this study is the one of food and nutrition security (FNS), embodied in the Sustainable Development Goals - (SDG 2): Zero Hunger. The eradication of hunger has come to the forefront of the debate on Sustainable Development. It will not be possible in the incoming years to feed a spiking global population without drastic measures to reform food supply chains in a way that is both equitable and environmentally minded.

Ethiopia is the geographical subject of this study. FNS is not widespread yet in Ethiopia; moreover, prospects suggest that transversal issues such as increasing resource scarcity, climate change and population growth will exacerbate food insecurity in Ethiopia. Ethiopian agriculture is generally known to be traditional and underperforming (Baye, 2017). For instance, only a small share of total arable area is under irrigation, making agriculture mostly rainfed (CSA, 2015). Yields could be intensified, postharvest (PHL) losses reduced, and the overall value of agricultural products increased: These improvements would have sensitive benefits to the vulnerability of the rural populations.

The Netherlands (NL) cooperates with the Ethiopian governement with the aim of alleviating Ethiopian poverty (Douma et *al.*, 2017). For instance, NL is the second trading partners for Ethiopia (UNTCAD, 2018). Ethiopian economy is in *transitional* development, moving out from economic stagnation toward high levels of economic growth (AfDB, 2015). For this reason, the NL partners with Ethiopia following an *aid and trade* approach to development: investments are intended to yield benefits for national by providing a strong trading partner to Ethiopian nation, while supporting the livelihoods of vulnerable people at the same time (NL, 2013).

Overall, the importance of foreign direct investment (FDI) has grown in Ethiopia. Ethiopian Government aims to increase FDIs through a Growth and Transformation Plan II, that has embarked Ethiopia into a agiculture-led plan for national modernization (Poli, 2018). This plan involves 80 per cent of Ethiopian population, which is rural and agriculturally employed (Mersha & Van Laerhoven, 2016). Hence, Dutch entrepreneurs are expected to support environmental protection, environmental-friendly products while contributing to large scale investments and technologies that outreach the potential of domestic governments (EBE, 2016).

There are about 11 million smallhoder farms in Ethiopia, which are the target of Ethiopian-Dutch agribusiness development. In low and middle income (LMI) countries, smallholders procurement is possibly the backbone of the inclusive business approach in agriculture (Endeva UG, 2012; UNDP, 2010). Inclusive business is known as a model of philanthrocapitalism, and part of the broader impact investing approach expected to play a critical role for poverty reduction and modernization in countries with booming economies and large shares of poor people (Ngoasong *et al.*, 2015; UNDP, 2010). Inclusive business approach foresees the opportunity to establish an engagement between people at the bottom of the economic pyramid (BoP) with one or more private firms (Jenkins et *al.*, 2010). Also, inclusive business will have a special importance for agriculture, possibly one of the most relevant economic sectors to the livelihoods of the poor (DCED, 2015).

However, recent research has claimed that projects limited to smallholders' procurement are neither inclusive nor beneficial to local food and nutrition security (FNS) (Chamberlain & Anseeuw, 2017; West & Haug, 2017). It becomes evident that a clear link between inclusive agribusiness and FNS is either still missing or exagerated. Consequently, this research aims to understand the contributions of different inclusive agribusinesses to Ethiopian FNS.

To conclude, this research is part of the *Follow the Food Project*, that since 2015 have mapped the impacts of Dutch agribusiness investments in Ethiopia, Ghana, Kenya. The focus of this Master Thesis Research is on the relationship between the Dutch inclusive agribusiness and FNS gains in Ethiopia. The first part of results are an overview of six cases of Dutch funded agribusiness, followed by an overview of Ethiopian FNS. Finally, the research maps Dutch agribusinesses contributions to FNS in Ethiopia; possibly sheding light onto a better understanding of the practical link between inclusive agribusiness and increased FNS. To conduct empirical research this master Thesis has adopted a self developed data collection tool to scan inclusive agribusinesses companies, previously developed conducing desk research on inclusive agribusiness within the *Follow the Food Project.*

# 2 Theoretical frameworks

The frame of theories in this section describes the topics of inclusive business and FNS separately. First, inclusive business approach is presented as an approach to poverty reduction and contextualized into international development studies. Secondly, inclusive business is framed into theories that help a practical understanding of this concepts; thirdly the inclusive business approach to agriculture is presented. The *sections 2.2 and 2.3,* had been used as theoretical backbone to the Inclusive agribusiness scan (IAB scan), that is the experimental data collection tool for this research. Then, FNS is framed into relevant theories to make this dynamic concept more solid; lastly the main hypothesis and conceptual framework for this research are presented to bind together inclusive agribusinesses, and FNS.

Two main theoretical frameworks had been selected:

1. *Inclusive Business*
2. *Food and Nutrition Security*

## 2.1 *Inclusive business as a business for poverty reduction*

### 2.1.1 *Terminology*

The first difference between inclusive business investments and conventional business investments lies on social impacts (ADB, 2012). While conventional investments are supposed to contribute to economic growth, inclusive businesses are shared value model that is supposed to lift people out of poverty (PRC, 2011). The value to society is given by the adoption of a pro-poor business model (*ibid*). To conclude, what makes inclusive business approach innovative is the creation of social value combined with business model's profitability.

Inclusive business is also different from an inclusive business. **Inclusive business** is the idea of including poor people into firms' activity (UNDP, 2010). Inclusive business is an approach used often as part of firms' corporate social responsibility strategy (CSR) to foster social impacts (UNDP, 2010; PRC, 2011). By doing so, conventional firms expand operations to absorb the poor into firms' value chain, by adopting one or more **inclusive instruments,** *i.e.* ***business linkages, inclusive market development*** (IMD)***, making markets work for the poor*** (MMW4P), ***pro-poor value chain development, responsible supply chain management*** (UNDP, 2010). Usually, these instruments are also known as **inclusive initiatives** used by large conventional firms to expand operations in BoP markets, and foster social impacts (G20, 2015). Anyway, inclusive initiatives do not always transform conventional into inclusive businesses, as the engagement to the poor is only marginal to firms' business model and profitability is not assured (*see figure 2.3*).

On the other hand, an **inclusive business** is a a business arrangement, like a firm or entrepreneurial initiative, moving away from standard CSR initiatives to develop a business model capturing the special relationship between the private sector and the poor (G20, 2015). For any business to start an inclusive business is to establish at least double bottom line, *i.e.* profit and poverty reduction goals (UNDP, 2010). Inclusive businesses are also different from inclusive initiatives and social enterprises for two reasons: first, inclusive business contributes to inclusive economic growth, and, to do so companies operate under profitable business models (Golja, & Po, 2012). Furthermore, an inclusive business is expected to bear an impact broader than social entrepreneurship. For instance, the Asian Development Bank (ADB) expects inclusive business to deliver incomes to a number of households ten times higher than those targeted by a social enterprise (ADB, 2012).

### 2.1.2 *Background in IDS*

International development studies (IDS) usually employ a broad perspective when analysing the inclusive business approach. In doing so, scholars aim for a theory of change linking private sector development with societal transformation toward development goals. Instances of such theoretical exercise appear in Chamberlain & Anseeuw (2018), Hahn (2012), Kanbur & Rauniyar (2010), Rammelt *et al.*, (2017).

Chamberlain & Anseeuw reviewed a set of inclusive business case studies in South Africa (SA). Analysing the effects of inclusive business on land and agrarian reform, authors suggested that inclusive business's activity has led to productivity increases and agricultural value, but also to power asymmetries, that eventually caused commercial entities taking over smallholders' assets with benefits limited to income increases for the latter group (Chamberlain & Anseeuw, 2017). The varying degrees of smallholders' capabilities and state protection, as well as the lack of reliable governance instruments to address power asymmetries and disputes, had been identified as explanatory factors for unintended and negative impacts of inclusive agribusinesses (*for instance see* - West and Haug, 2016).

Next, Hahn bridges the inclusive business approach to human dignity and human rights to take into account well being and freedom suggesting that inclusive business approach has positive impacts on human dignity. However, one criticism survived as inclusive business policy should aim for multiple income opportunities, as with only one income opportunity individuals may experience a retributed form of slavery (Hahn, 2012; p.49). Moreover, Kanbur & Rauniyar (2010) reviewed infrastructural networks' literature bringing forward the causal link between inclusive growth and infrastructural development. Kanbur & Rauniyar has put rural populations in developing countries at the heart of inclusive business approach; their results indicate that special attention should be given to the use and the value foreseen in road-networks by the poor, highlight the fact that access and availability do not systematically lead to increased use and utilisation.

Finally, Rammelt *et al*., (2017) reflected on the relevance of inclusiveness to international development policy, analysing the relationship between inclusive private sector development and un-waged work in rural Ethiopia. The conclusion was that those income opportunities do not necessarily broaden productivity and households' self-reliance, sometimes leading to a loss of time of time disposable to other activities.

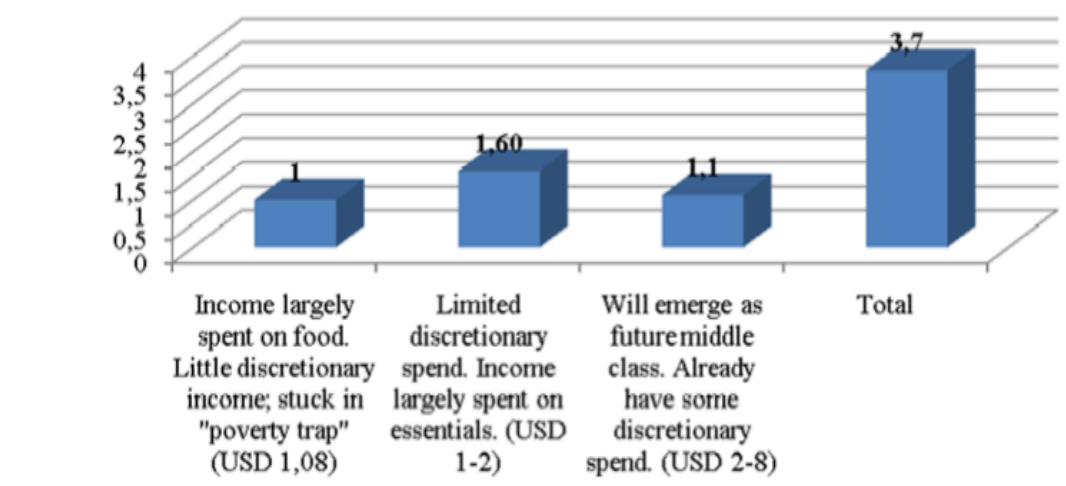



**figure 2.1 - Segmentation of the Base of the Pyramid population based on income based on different poverty lines- adopted from - Golja & Po, 2012. Such visualisation can help entrepreneurs to narrow down business interventions to selected segments in of the composition of three income groups' composition, *i.e.* people living below the 1$, 1-2$ and 2-8$ BoP.**

### 2.1.3 *Bottom of the pyramid thesis (BoP)*

There is an almost absolute agreement that inclusive business concept grew from the BoP thesis (PRC, 2011; Golija & Po, 2012; WBCSD, 2016). The BoP thesis firstly theorised by Prahalad in 2006, foresees a comparative advantage for businesses to assist people living in poverty worldwide. The BoP gained consensus in the current literature as a profitable state of affairs for entrepreneurs to design and implement business models for poverty reduction strategy that lead the company to economic growth (see Jenkins *et al.,* 2010).

The economic heterogeneity of the poor is implicit to the theory of the BoP. A schematization of this concept is presented in Golija & Po (2012). In **figure 2.1** *above*, incomes range from 1 to 8 USD per day. Different income levels lead actors to fulfil their needs and dispose of income with various capacities and allocation strategies. So, for companies to design successful inclusive models is to take into account this fundamental difference between income levels, as well as the different needs of the poor (Goija & Po, 2012). Noteworthy, non-income factors sometimes reinforce poverty patterns. For instance, the situation experienced by rural people or women at the BoP is often worse than their counterpart even within the same income group, (Hadiza and Philip, 2017).

### 2.1.4 *Inclusive business as a form of FDI*

Inclusive businesses in international development operationalise foreign direct investment (FDI) for poverty reduction. (Ngoasong, *et al.,* 2015). Hence, at this stage of analysis, the focus moves away from the needs of the poor to shed light on the capabilities of businesses. This definition of inclusive business as FDIS is what connects this approach to inclusive growth (Meyer, 2004 in PRC, 2011). Real life example also supports this approach: challenges in developing countries do not distinguish between conventional or inclusive business (DCED, 2016). Furthermore, inclusive businesses often operate under the same status as conventional businesses, leading the latter to work under the same regulation (Golja & Po, 2012). So it is possible to conclude that such common factors generate similar investment dynamics.

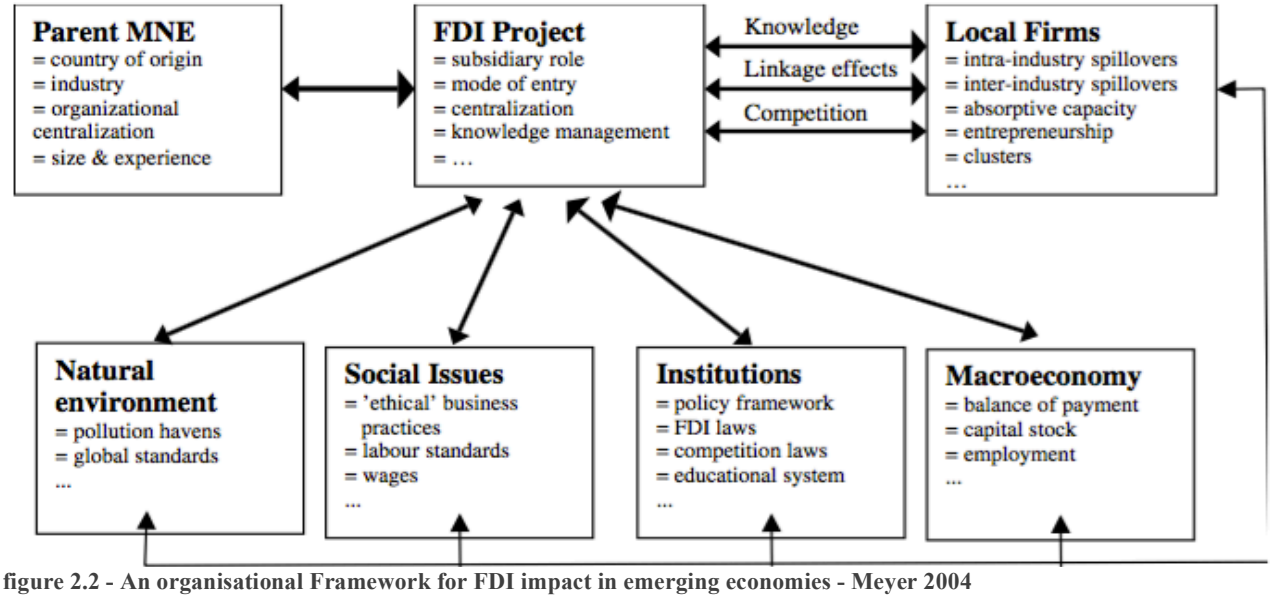



**figure 2.2 - An organisational Framework for FDI impact in emerging economies - Meyer 2004**

Under a basic definition, foreign direct investment involves the acquisition of company shares by foreign investors via capital investment (UNCTAD, 2018). FDIs supposedly produce a bonding effect between two or more economies, leading to the establishment of profoundly communicating market linkages. A short list of benefits amounts to increased exports, reduced market deficit,

technology transfers, better management techniques, knowledge spill-overs, *for instance, see Meyer* (2004).

| Subject of analysis | Level of analysis | Highlighted concepts |
|---|---|---|
| **Parent MNEs** | Sending firm characteristics | *Case dependent to each firm* |
| FDI project | Entry strategies | Acquisitions<br>Greenfield projects<br>Joint venture |
| | Subsidiary role | Export-production<br>Internal-market-retail<br>Value-addition |
| Local Firm | Intra-industry spill-overs | Demonstration effects<br>Employees movement |
| | Inter-industry spill-overs | Economy of scale<br>Machinery supply<br>New market networks<br>Productivity increases<br>Quality standards increases<br>Supply intermediate goods<br>Training |
| | Absorptive capacity | Firm dynamic capabilities = human capital, structural organization, etc...<br>Forms of ownership<br>Human resource management practices<br>Interactive top management teams<br>Cognition of opportunities for knowledge transfer and organisational change |
| | Entrepreneurship | Ex-employees turning into entrepeneurs<br>Close business relationships with suppliers or contractors |
| | Industrial clusters | Business networks<br>Large foreign firm creating clusters ex now |
| | Distribution of benefits | Power asymmetries<br>Information asymmetries<br>Local suppliers bargaining power<br>Typology of supplier |
| Natural environment | Positive | Transfer of modern, environmentally friendly technology and production processes - *Pollution halo effect*<br>Energy efficient technologies<br>Evolution of regulatory standards in receiving economies |
| | Negative | Transfer of outdated technology to locations with less stringent environmental regulation - *Pollution haven effect*<br>'Race to the bottom' in environmental standards<br>Sector specific issues *i.e. resource use, landscape alteration* |
| Social issues | Labour | Local firms to pay higher wages and to employ high labour standards<br>Lower standards and wages reduce production costs<br>Cartel-like cooperation via shared codes of conducts<br>Sweatshops as a precondition for successful industrialisation<br>Host countries may compromise standards to attract investments |

**Table 2.1 - Influence factors in Meyer's Framework**

Meyer (2004) presented a complex, multilevel framework to organise FDI projects and their impacts (*Figure 2.2* and *table 2.1*); the framework displays posible dynamic interaction between parent and domestic firms, important to the success and the impacts of any FDI project. The set up of an FDI project does not mean an all-around linkage between the two economies. Instead, it

establishes a common project usually creating a new entity, *i.e. a* shared firm in receiving country. As one can note, linkages between sending and receiving firms are indirect ones meaning that interaction is not linear. Hence, successful outcomes are dependent on the qualities of both firms, their capabilities and the contextual environment where they act.

To sum up, inclusive businesses in developing countries have often the form of *FDI projects* Meyer's framework sketches influence factors in *FDI projects*, and on from a broader perspective market linkages. According to Meyer, there are two levels of direct analysis for FDI projects: that of the foreign firm and that of the local firm. The success of FDIs remains contextual both to factors that are country-wide, i.*e.* social, economic, political environment; and endogenous factors to the entities involved in the project, *i.e.* nationality of the companies, the type of investment project or firms' capabilities, for instance *see table 2.1 reporting influence factors.*

## 2.2 *Inclusive business in practice*

### 2.2.1 *Inclusive business models*

The adoption of an inclusive business model occurs when poverty eradication is integrated into company's core activities, leaning company's strategy toward poverty reduction goals, and thus reducing economic exclusion of the poor either from consumption or production systems (PRC, 2011).

**Inclusive Businesses** are companies of different sizes operating under an **inclusive business model** both in developing and developed countries (Wach, 2016). The G20 Framework for Inclusive Business (2015) has categorised these enterprises based on three factors: their relation to the BoP, expected financial returns, and finally primary funding type. It follows that an inclusive business model is successful when it allows business to integrate the poor at the core of its value chain; secondly, it has a well-defined strategy to attract revenues, and finally, it enables the company to fund itself by running operations. Hence, the integration of the BoP at the core of the value chain is what differentiates inclusive businesses from other commercial entities. Finally, commercial funding marks the distinction between inclusive business from development interventions dependent on public financing (G20, 2015; *see below* - figure 2.3).

| | INCLUSIVE BUSINESS MODELS | INCLUSIVE BUSINESS ACTIVITIES | SOCIAL ENTERPRISE INITIATIVES |
|---|---|---|---|
| BOP's Relationship to Business | Core Value Chain | Ancillary | Ancillary or Core Value Chain |
| Financial Return Expectations | Market Returns | Market Returns or Below Market Returns | Not Profit Maximizing |
| Primary Funding Type | Commercial | Commercial | Mixed |

**figure 2.3 - three principles to benchmark the inclusive business model - taken from the *G20 framework for inclusive business, 2015.***

The successful integration of the BoP at the core of the value chain is what differentiates an inclusive business from the plethora of commercial enterprises. The PRC (2011) theorised that Bop core integration in the value chain is testified by company goals, vision, and mission. Company's commitment to poverty eradication is testified by public statements as well as explicit mention of

poverty reduction goals by management. Another possible approach to the study of business models would be looking at the business model's value proposition (UNDP, 2010). Value propositions are simple statements defining how company creates value, which make explicit how value is created, marketed and captured by firms (ibid). Value propositions are readily accessible because are necessary to firms for multiple purposes: visualising value accruing to shareholders and stakeholders, or as marketing tools bonding the company together to its customers (Patala *et al.,* 2016). Also, methods based on value propositions are already primarily utilised to develop sustainable business models. Patala *et al.* (2016; p.1) defined sustainable value propositions as "*a promise on the economic, environmental and social benefits that a firm's offering delivers to customers and society at large, considering short terms profits and long-term sustainability".*

It is possible to conclude that, by the same token, for inclusive businesses the value proposition would define both core integration of the BoP and value creation referring to a double bottom line *i.e. profit and poverty reduction*.

### 2.2.2 *Modes of impact*

Broadly speaking the inclusive business approach uplifts people from poverty either through the provision of affordable products or various forms of income (Hahn, 2012). It was presented by Hahn (2012), similar claims apper in G20 (2015), UNDP (2010), Jenkins *et. al*, (2010), and WBCSD (2016). Inclusive business approach foresees the opportunity to integrate the poor at one, or even multiple points of the value chain impacting directly consumption and production systems. In **figure 2.4** the twofold mode of impacts for inclusive business is shown.

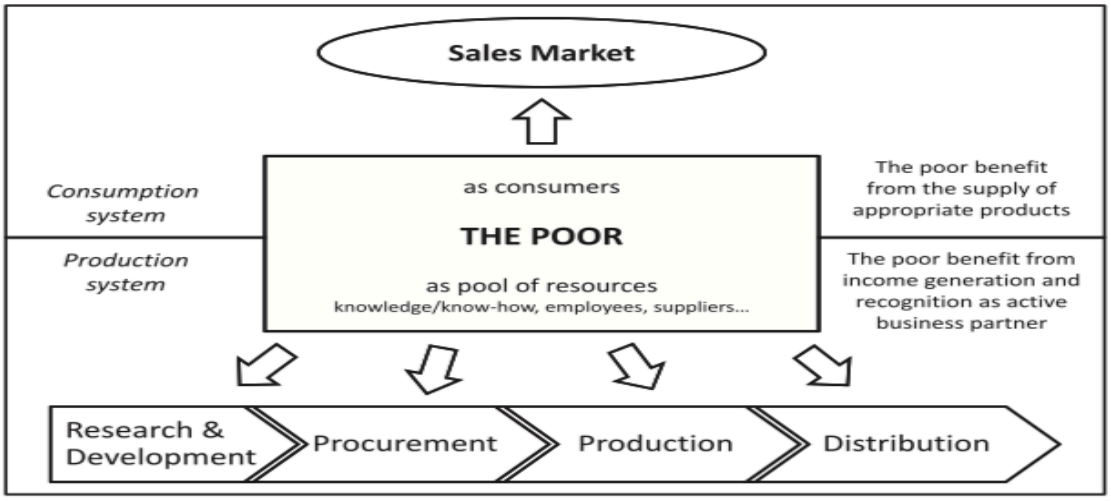



**figure 2.4 - Modes of impact in inclusive business approaches- adopted from Hahn, 2012**

Consequently, inclusive businesses approach treats the poor either as costumers, or as resources to the company. In the first case, the poor become company's costumers for affordable products or services to meet their needs. In the latter case, companies would include the poor in their value chain as consultants, workforce, suppliers, distributors or retailers at the various stages of the value chain (Endeva, UG 2012). The latter approach is highly relevant for companies to operate in highly uncertain markets, especially in developing countries; as such in need of establishing a tight control over their supply chain usually for quality requirements (*ibid*). It is important to note that modes of impacts are not exclusionary. Therefore, inclusive businesses may also have a double impact mode. For instance, a company can employ the poor to develop, or craft, a product needed by the low-income population, *e.g. affordable foods.* In this way, such a company would provide products appropriate food for the poor, while also generating income opportunities.

## 2.3 *Additional concepts related to inclusive business*

### 2.3.1 *Partnerships in developing countries and BoP markets*

An extensive body of grey and scientific literature prophetizes partnerships to be the fundamental dimension to enhance inclusive business contributions to poverty reduction (BIF, 2013; PRC, 2011; PBL, 2015). The introduction of partnership in this theoretical framework is due to the importance attributed to cross-sector partnerships for societal transformation by the *Sustainable Development Goal* 17.

Generally, private to public partnerships (PPPs) are considered a valuable tool to enhance inclusive business activity. Partnerships for inclusive business are widely used to finance and manage international development projects (for instances - *see* PBL, 2015). Even though PPPs usually generate mixed results on poverty reduction goals (*ibid.*), effective partnerships can be considered as an effective tools for inclusive businesses to access a variety of financial and non-financial inputs needed to operate at *bottom of the economic pyramid*. For instance, performing inclusiveness may bear extra costs, or require knowledge of local dynamics (BIF, 2013). Such challenges can be overcome by working in partnership with development-minded investors or entities that are active in the foreign country. Taking the abovementioned theoretical pieces of evidence as a rationale to consider partnerships as relevant to the success of inclusive businesses, this research borrows from the BIF (2013) a table describing possible partners and rationale for inclusive business to enter partnerships. Rather than a real framework to asses the quality of partnerships, this research presents a framework to understand partnering opportunities and the rationale for inclusive business managers to enter a partnering agreements (**table 2.2** - *see below*).

Table 2.2 - Rationale for inclusive businesses to enter partnership agreements - *Source: BIF (2013)*

| **Public sector in receiving countries:** | **Foundations and international donors:** | **Civil society organizations** | **Private sector:** |
|---|---|---|---|
| Capacity building<br><br>Provision of land and supporting infrastructure<br>Regulatory permission | Provision of risk capital, loan guarantees and project development funding<br><br>Technical assistance | Access to micro-credit<br><br>Access to scientific knowledge<br><br>Direct knowledge of poor markets of under-served customers<br><br>Expertise on pro-poor activities<br><br>Networks in communities along developing countries<br><br>Technical support and capacity building | Access to international markets<br><br>Access to distribution networks<br><br>Access to knowledge an inputs such as machinery, seeds<br><br>Engagements with unusual suppliers<br><br>Quality certification |

### 2.3.2 *Corporate Social Responsibility (CSR)*

Inclusive business and CSR policy are two related, and yet different concepts. Although, inclusive business are sometimes initiated in CSR departments, CSR is a broader concept that has to do with the way in which a company controls and reduce its negative impacts to society (UNDP, 2010; OECD, 2011). As the inclusive business approach has overcome the niche stage to become a widely

diffused model for poverty reduction, the difference between CSR to conventional businesses has now become clearer (G20, 2015). Inclusive businesses operate a pro-poor business model, with clear benefits for poverty reduction and profit. Instead, CSR policies are usually ancillary to the firm and do not endager business core activities, making firms and social impacts travelling on parallel trails due to the difference between core activities and poverty reduction.

A reason to separate inclusive business and CSR lies upon the very nature of CSR as a responsive strategy for firms to social and environmental negative impacts (Wach, 2012). Furthermore, the inner nature of inclusive businesses looks more influenced by economic growth than actual social responsibility. As companies can enter inclusive business arrangements as a form of comparative advantage and as way to gain a broader market share (Jenkins *et al.*, 2010).

Next, the link between inclusive businesses and unexpected development impacts had been found follow the trail followed by conventional business (UNDP, 2010). This indicates that inclusive businesses are expected to establish a triple bottom line for social, economic, and environmental impacts (*ibid.*). However, there is no theoretical evidence to claim that inclusive business have a better risk management systems than any other type of FDI projects. Thus, this research understood inclusive businesses as having a conventional risk management strategy.

Finally, due to the growing attention devoted by stakeholders in developed countries as well governments in developing ones onto the imacts of FDI projects, inclusive businesses are expected to have an indipendent a risk management system to address and compensate for their eventual and actual negative impacts. Especially since business regulations are looser in less-developed countries often overlooking social and environmental rights (OECD, 2011).

## 2.4 *Inclusive agribusiness*

### 2.4.1 *Economic sector approach to inclusive business*

Also, the economic sector where a business operates shapes its capability to engage with the BoP. This is made clear in *The G20 framework for inclusive business* (2015) which used as benchmark the economic sector of operations *i.e.* agriculture, healthcare, finance and credit. Also, Goija & Po (2012) depicted different approaches based on the economic sector where company operates. Consequently, it is necessary to define theoretical boundaries that are specific for an inclusive agribusiness.

### 2.4.2 *Van Fleet's Generic Agribusiness Framework*

Van Fleet (2016) defined the agribusiness as the subsystem of agriculture, that is comprised of all private sector organizations along the entire supplychain for agri-food products. The figure below offers a visualization of the whole subsystem of agribusiness. The agribusiness stretches from *initiation, e.g*. the companies which have interests to initiative agri-business projects to *culmination, e.g.* final users, households or exporters. Firstly, one can see the different stages of the value chain, *i.e. feedstocks, farms and ranches, diaries, fisheries, growers/tree, farms, lumber importers;* and related actors along the supply chain. Each link narrows down the preceding one and leads products away from first producers to consumers.

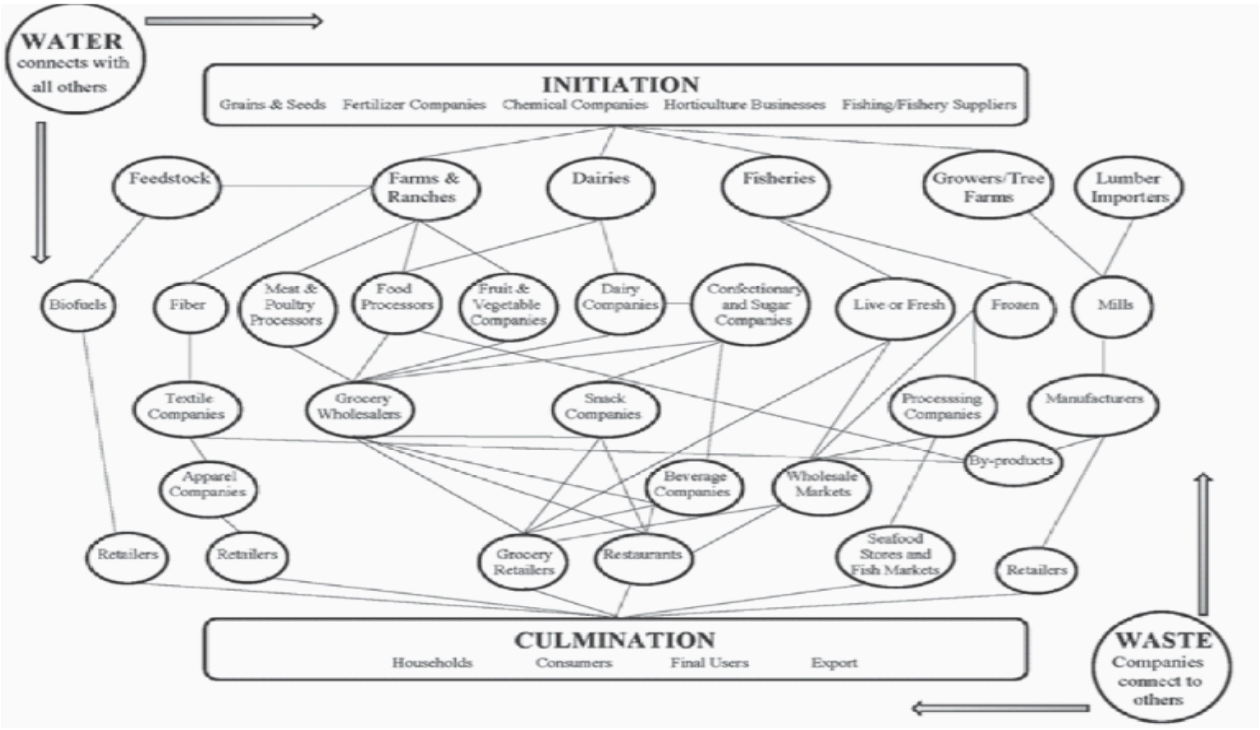



**figure 2.5 - Generic framework for agribusiness - Adopted from Van Fleet 2016.**

Similar models employing a broad perspectives are often used to describe agricultural supply chains and value chains. The OECD-FAO *Guidance for Responsible Agricultural Supply Chains* defined the agribusiness as "the system encompassing all the activities, organisations, actors, technology, information, resources and services involved in producing agri-food products for consumer markets" (OECD-FAO, 2010; p. 19). Similarly, the GIZ describe agricultural value chains as composed of different stages of production beginning with agricultural research and development, and input provision at the first stages, and culminating in manufacturing and processing or export (Endeva UG, 2012). Yet, Supply chain configurations are sometimes too complex as they describe actors, networks, and technologies rather than activities and actors. While sophisticated value chain approaches, notably Porter & Kramer, focus too much on firm to firm configuration and the different value creation stages. Instead, approaching the agribusiness through the perspective of this generic framework help visualizing the whole spectrum of activites performed by private actors in agriculture, from the early steps of agriculture to food production.

This comprehensive approach would expand the boundaries of the current debate about the impact of inclusive agribusiness. Most often, inclusive agribusiness interventions are reported to target the production system, hence exclusively directed to improve the well being of rural populations adopting inclusive instruments such as smallhoders procurement or contract farming schemes (Chamberlain & Anseeuw, 2017; Van Westen et al., 2013; ENDEVA UG, 2012; FAO, 2015). On the contrary, Van Fleet framework indicates that the agribusiness includes also costumers and retailers. For this reason urban populations, that approach agri-food products mostly at late stages of the value chain *i.e.,* as consumers or retailers, can be considered as targets for inclusive agribusiness interventions. Therefore, the contributions of agribusiness to poverty reduction can stretch all along the supply chain. This concept is also exemplified in WBCSD (2016), which indicate the production and sale of fortified and ultra-nutritious foods as an inclusive agribusiness solution.

## 2.5 *Food and Nutrition Security (FNS)*

### 2.5.1 *Background: The four dimensions of FNS*

This research adopted to the definition of FNS as envisaged by the *Food and Agriculture Organization of the United Nations* (FAO), as stated by in *Rome's Declaration on Food Security*: Food security occurs when "all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life" (FAO, 2002).

A comprehensive definition of FNS is necessary to grasp the implication of hunger and malnutrition on health status. To understand FNS as the conjunction of physical, temporal and financial determinants is to acknowledge the correlation between the availability of foods, the capability of people to access it and make use of it. Such definition considers food security as determined by food and non-food factors, i.e. physical, financial and temporal determinants, and highlights the relevance of nutrition on the health status. Furthermore, such definition is part of *fundamental human rights* which implies that countries have the responsibility to act against starvation and hunger (Article 25 - Universal Human Rights Declaration).

The inclusion of **non-food factors** within the definition of FNS occurred somewhat recently. At the onset, the definition of FNS reaffered to stable fo*od supply chains* (Gros, et al. 2000). In 1943, world leaders met at *Hot Spring Conference of Food and Agriculture* to call for a "secure, adequate and suitable supply of food for everyone" for the first time in contemporary history. Then, in 1945, the Food and Agriculture Organization of the United Nations was established to as a platform for donor countries to manage global *food surpluses* and to catalyse food aids (*ibid*).

In the 1960s, the idea food availability as a prerequisite for development and national self-sufficiency was widespread, and with such mindset the *World Food Programme* came to be founded in 1961-1963 (Gros, et al. 2000). During the food crisis 1972-1974 global food production went down, and policymakers focused again on the availability of food by supporting food insurance schemes to assure food availability in recipient countries during times of crises (*ibid.*).

The 1980s came to be known as the years of the *Green Revolution,* and technological upgrades boosted agricultural productivity, with substantial gains to global FNS. High yields and growing production made evident that low economic capabilities caused in as much food insecurity as low productive capacity (*Moesley et al.*, 2015). Then, in 1983 Amartya Sen published *Poverty and Famines: An Essay on Entitlement and Deprivation* published. Since then, this famous theory conceptualised food deprivation as the inability to buy one's way into food supply, rather than production failures. Eventually, economic access was the critical factor behind the cases of the *Bengal Famine* (1943), the *Ethiopian famines* (1973-1974), the *Bangladesh famine* (1974), and famine in the *Sahel's countries* (1970s) (Oxford, 2018). Since then the *economic access theory* had come to be the mainstream approach, and it has lasted until today.

Next, the current conception of FNS also includes non-food factors, which are the one connecting the micro dimension of human consumption with the macro dimensions of access and availaility of food. First in the list is nutrition, which connects determinants of food security to health status. The WHO (2018) defines nutrition as the necessary food-intake as compared to body's dietary needs. Poor nutrition leads to a series of non communical diseases causing sometimes impaired physical and mental development. Nutrition is also used to measure the magnitude of food insecurity problems. For instance, food insecurity statiscs are calculated by using two indicators *of nutrition:*

*namely* prevalence of undernourished to the total population (PoU), secondly, the prevalence of underweight children under five years of age (CU5) (FAO, 2018).

Secondly, temporality is inherent to the definition of *FNS, as it states that food security* is granted when people have access to food at all times. Hence, FNS is not a constant situation and it may vary greatly due to circumstantial changes, *either at the* micro or macro level of analysis. To monitor this temporal dimension the WFP (2006) adopts three-fold conception, according to which food insecurity is either **chronic**, **cyclical** or **transitory**. The first case is the most severe, and indicates a situation in when food insecurity is a long-term or persistent lasting at least half of a year. The subsequent case food insecurity is sesonal and fook-intakes are influenced by habitual seasonal variations. Lastly, transitory food insecurity is a temporary inability to meet to consumed desired foods, usually associated with suddden events and crisis. Yet, not less dramatic than the other two. Consider that the largest single contributor to starvation in the world is armed conflict (FAO, 2018).

## 2.6 *Conceptual Framework: Framing inclusve agribusiness with FNS*

Instances of the link between FNS and inclusive business approach are heterogeneous and confused both rega*rding targeted-actors* as well as the type of development intervention. The conceptual framework of this research tries to overcome the lack of clarity about inclusive agribusiness interventions, by biding the concept of FNS together with that of inclusive agribusiness interventions; and hypothesising an existing yet unknown empirical relationships between the two concepts.

Such association is indeed envisaged in the literature, for instance contextualizing inclusive business to the SDG 2, benefits amount to "produce and provide access to fortified *food and supply* of micronutrients" and "develop innovative and more efficient technologies to increase productivity and income of smallholders" (WBCSD, 2016). Or, under the theoretical premises illustrated in the previous sections; benefits for the poor amount to products and services tailored to their needs, or income opportunities along agricultural supply chains.

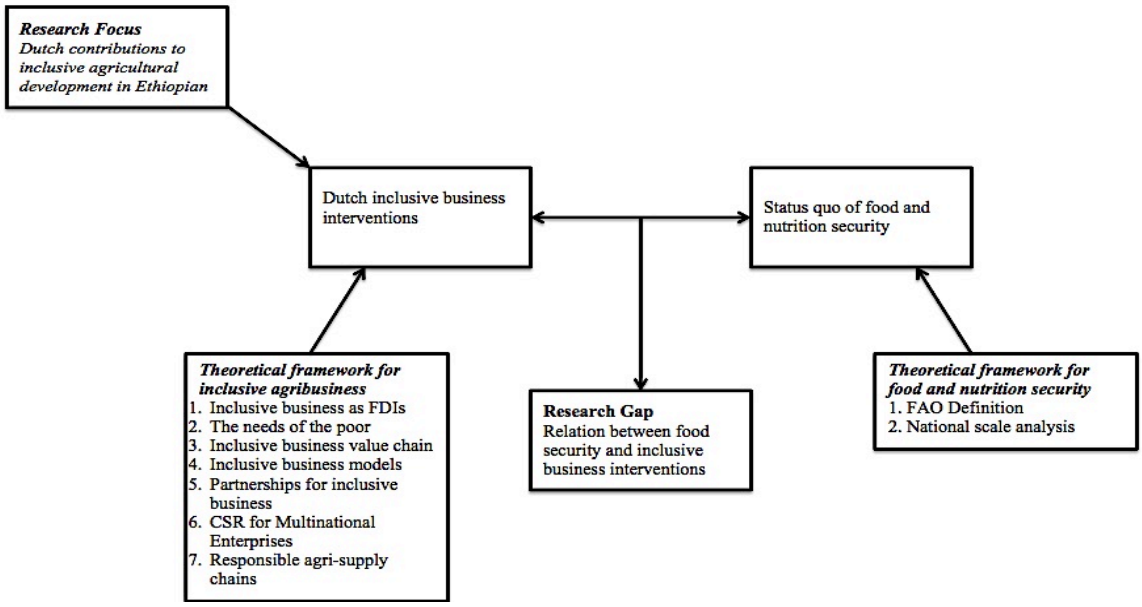



**Figure 2.6 - Conceptual framework to frame together inclusive agribusiness and food and nutrition security**

The aim of this section is to frame together Dutch inclusive agribusiness interventions and contributions to FNS, whose relationship is also the research gap in this Master Thesis. The inclusive agribusiness in this framework is an ideal type, formed by six dimensions, i.e. targets, value chain integration, inclusive business model, partrnership, CSR, responsible supply chain management. Most of these six dimensions and their importance to the inclusive agribusiness has been documented previously in this chapter. FNS will be approached at the national level by looking at the fundamental dimensions of *food availability, food access, food use and utilisations, and stability of food supply*, as described in the previous section.

### 2.6.1 *Hypothesis*

Even though a clear empirical link between Dutch agribusiness activity and FNS in Ethiopia is lacking, *e.g.* Van Westen, *et al.,* (2013) - this research hypothesises a connection between inclusive agribusinesses and FNS in Ethiopia, based on core integration of the poor within the business models of Dutch inclusive agribusinesses. Because under the inclusive agribusiness approach FNS gains are expected to meet the specific needs of the poor, or to contribute to better diets for the Ethiopian population. This hypothesis countervails the established hypothesis according to which Ethiopians suffer food insecurity due to loose supply chains and value chains, lack of income opportunities and low food availability (in NL, 2013). Finally, this research employs an experimental data collection tool and therefore it hypothesizes tha**t data on inclusive business activity can be collected by scanning inclusive businesses via the 7 dimensions selected during the literature review.**

To test these hypotheses this research will collect data on Ethiopian FNS at the national level, by looking at four fundamental dimensions of food security, *i.e. food availability, food access, food use and utilization* and *the stability of food supply.* Then, emprirical data will be collected on Dutch inclusive business interventions and matched to the state of FNS. This exercise is expected to provide information on two important relations. First, the relationshp between inclusive agribusiness and FNS. Secondly, the relationship between Dutch policy making and inclusive business approach when investing in Ethiopia.

# 3 Regional framework: Ethiopia

In this section a brief introduction to the fieldowrk research is presented, Ethiopia is described by looking at geographical features and social features (3.1). Secondly, a brief overview of Ethiopian economy is put forward to describe it as an economy on the move, from the status of low-middle-income to that of middle income economy; in section 3.2, special attention is devoted to the importance of FDIs and agriculture for the Ethiopian economy. Finally this chapter concludes with a prelimary research, section (3.3), on Dutch Agribusiness investment, which are highly relevant to the empirical stage of this research.

## 3.1 *Socio-geographical characteristics*

### 3.1.1 *Geography*

Ethiopia is a landlocked country located in the horn of Africa, lying between the Equator and the Tropic of Cancer. It shares its borders with Eritrea to the north, Djibouti and Somalia to the east, Sudan and South Sudan to the west and Kenya to the south. Ethiopia has a complex topography, diversified climate, and immense water resources giving to the country high potential for agricultural development as well as hydroelectric production (Berhanu *et al.,* 2014).

Broadly apeaking, the topographic variations explain much of climatic heterogeneity in the country. There are two rainy seasons in Ethiopia, namely the *meher* and the *belg* seasons recurring respectively during summer (June, July, August, September, October) and spring (March, April and June). The first is characterised by heavy rain, while in the latter rain patterns are lower and looser (WFP, 2014).

Country area amounts to 1.104.300 square kilometers, where 36 per cent is agricultural area, 12.6 per cent are forests (Knoema, 2018). The country remains generally land abundant, even though recent issues had increased pressure on land resources, i.e. population growth, climate change, growing urbanisation international land deals.

Furthermore, Ethiopia exhibits a low level of water distress; in-land water resources are abundant in the nation, both as groundwater and surface water. Reportedly, average rainfalls in the country range between 510 millimetres and 1280 millimetres, and withdrawn waters amount to less than ten per cent of supplied waters; this makes water distress in Ethiopia among the lowest in the world (WRI, 2018).

figure 3.1 - Ethiopiam nine Regional States - Source Wikipedia, 2018


### 3.1.2 *Ethiopian Population*

Ethiopia is the oldest State in Sub Saharan Africa (SSA), and it is a Federal Democracy divided into nine regions: Afar, Amhara, Benishangu-Gumuz, Gambela, Harari, Oromia, Somali, Southern Nations, Nationalities, and People's Region and Tigray.

Next, Ethiopia is the second most populous country in Africa, hosting up to 102 million people, population growth rate is high around 2.5 *per cent* year. Informal sources suggested this number is higher around 120 million people. Ethiopian population is young and forecasted to double by

mid-century as the *0 to 24 year*s age segment accounts for two-thirds of total Ethiopians (AfDB, 2015). Addis Ababa, the Ethiopian capital, hosts an estimated 4 to 10 million people, according to informal sources. Ethiopian population is also a very diverse country as the population is composed of more than 80 ethnic groups (Mersha & Van Laerhoven, 2016). This resulted in social fragmentation and attacks between social groups, that has occurred also during fieldwork period.

Hence, population is highly diverse regarding culture, traditions and knowledge, and low literacy rates reaffirm such social differences - 70 *per cent* for youths, 49 *per cent* for adults, and 14 *per cent* for the elderly (Knoema, 2018). Significant is also the rural-urban divide. Ethiopia society is mostly rural: 80 *per cent* of Ethiopians reportedly live in rural areas, while urban areas contribute only to the 38 per cent of GDP, accounting for a mere 60 *per cent* of formal employment opportunities between 2005 and 2011 (AfDB, 2015). But as urbanisation is growing, the occurrence of economic diversification reduced dependence on agricultural employment.

Finally, in 2015 over 52 million Ethiopians were females. Ethiopia is a patriarchal society, and gender disparity is deeply rooted in tradition (Mersha & Van Laerhoven, 2016). Rural women are the most affected by power disparity, which leads them to be excluded from productive resources (ibid).

## 3.2 *Ethiopian Economy*

The Ethiopian economy is still significantly informal, and private sector development had been deemed to be the key to reverse such situation by increasing both the quantity and the quality of employement. Ethiopian GDP is on the rise. It is currently growing around 10 per cent a year since 2005, value added by Ethiopian economy has increased steadily since 2006, and Ethiopians increasingly find job opportunities beyond agriculture (AfDB, 2015). In 2014/2015, 25 per cent of the GDP came from agriculture, 15,2 per cent from industry and 46,1 per cent from service provision (AfDB, 2015). According to other sources, agriculture accounts for 43 per cent of GDP (Mersha & Van Laerhoven, 2016).

Ethiopia is today home one of the poorest population worldwide. Although the recent GDP rise, the country has remained shredded between poverty and modernisation. Ethiopia is a BoP market, where poverty is largely diffused, and the demands of the poor are still largely unmet: an estimated 84 *per cent* of Ethiopian population lived under the 5$ a day poverty line in 2015 - in adjusted purchasing power to 2011 USD value (Knoema, 2018). Real GDP per capita is extremely low at 709 US dollars a year. Surprisingly the GINI coefficient is at 0.33 meaning that inequality is not pronounced, but possibly suggesting that poverty is endemic to the country (*ibid*). Finally, Ethiopia is running on a huge trade deficit, much of which can be explained by public investments to support infrastructural development (AfDB, 2015).

figure 3.2 - Workers in the City area of Addis Ababa, trimming branches of trees close to high intensity electricity. As one can not they were not working under the necessary safety measures. This is a testimony of the high degree of informality of Ethiopian everyday economy.

The Ethiopian government launched two strategic five-year plans for economic development to halt and reverse poverty and agricultural dependency. These were the *Growth & Transformation Plan I* (2010-2015) and *the Growth & Transformation Plan II* (2015-2020) - also

known as GTP I and GTP II (ADfB, 2015). GTP I, aimed for inclusive growth via public-driven infrastructural development. The GTP I has been deemed successful as it led reported 20 million of Ethiopians out of extreme poverty and allowed the country to meet most targets in the Millenium Development Goals in 2015 (*ibid*). While the need for economic restructuring had been made clear in the GTP II, which aims for rapid industrialisation and diversification of the Ethiopian economy, as well as Sustainable Development Goals to ensure a climate resilient economy (Team T., 2011). In this sense, The GTP II is expected to lead to economic diversification based on growing manufacture and service sectors (Douma *et al.,* 2017). Ethiopia is now in the middle of GTP II, which aims for inclusive economic growth to reach the status of an industrialised middle-income-economy by 2025 (ADfB, 2015).


figure 3.3 - a traditional market in Addis Ababa where livestock freely move around

### 3.2.1 *Agriculture*

Country's unique history had a great deal of influence on agrarian development in Ethiopia (Baye, 2017). Reasons for rural poverty and low yields can be understood as socio-technical systems failures, and isolation from international trade in between 1600 and 1900, which prevented the occurrence of modernisation in farming technologies and seeds selection (*ibid.*). Moreover, ruling elites failed to protect the peasantry; therefore agricultural surpluses were systematically ripped off from farmers, transforming the latter into a subjugated class of peasants (*ibid.*).

The Ethiopian economy revolves around agriculture, and especially a type of traditional agriculture based on smallholder agriculture (*ibid.*). For instance, around 11 million rural households reportedly provide 95 per cent of agricultural GDP (Deloitte, 2017). As a result, average yields are low even when compared to other countries in SSA (Baye, 2017). Also, Ethiopian agriculture is mostly dependent on rainfed agriculture, and this makes it highly vulnerable to sudden shocks (Mersha & Van Laerhoven, 2016). In this context, the GTP II is expected to yield tremendous contributions to

agricultural modernisation promoting increases in staple crop productivity, and industrial agriculture for export markets by involving the large group of smallholder farmers into export-oriented horticultural outgrowers models (Douma *et al.,* 2017).

## 3.3 *Foreign direct investments in Ethiopia*

Foreign direct investments (FDIs) are widespread to all economic sectors in Ethiopia. In 2016, FDIs contributed to 5.5 per cent of a 72 billion USD (WB, 2018). In 2016, the amount of FDI received by the country surpassed aggregate remittances (UnctadStat, 2018). A historical result, which indicates the increasing attractiveness of the Ethiopian economy to foreign investors. In between 2006-2012, FDIs grew from 0.4 per cent to 1.9 per cent of the GDP (*ibid*). Consequently, Ethiopian trade value had risen steadily, more than 200 per cent since 2005, from 903 to 2 919 million USD in 2016 (Knoema, 2018). Trends are expected keeping up with this trend in the incoming years.

Anyway, two worrisome factors need to be highlighted: First, FDIs in Ethiopian targeted mostly labour intensive activities, like agriculture, where lower production prices represent attractiveness for companies. Therefore, the attractiveness of Ethiopian to investors may respond negatively to political instability and wage increases (Van Westen *et al.,* 2013). Secondly, Ethiopia mostly exports cheap agricultural raw materials to import expensive manufactured and semi-manufactured goods. In fact, import value amount to 30 per cent of total GDP, while export value only to 9 per cent (Knoema, 2018). Moreover, agrifood exports amounted to 73% of total exports in 2016 (UNCTAD, 2018). While on the other hand main Ethiopian imports are manufactured goods and machinery including textiles, machinery and fuels (tradingeconomics, 2018).

### 3.3.1 *Mapping Dutch agri-investments in Ethiopia*

Policy documents indicate that Dutch and Ethiopian Governments have an intent to support Ethiopian ambitious private sector development and poverty reduction plans (Rebergen & Ahmed Shide, 2015). As also mentioned before, the Ethiopian government has initiated an agriculture-led plan for modernisation to attract foreign investments and increase exports (Poli, 2018; Team T., 2011). And, Dutch investments into Ethiopian agriculture have come to support the greater agricultural industrialisation plans and bridging Ethiopian products to richer and distant markets. In fact, part of the *current* Dutch discourse for Ethiopian development revolves around supporting rural producers to increase productivity and value-added, modernizing supply chains and bridgeing Ethiopia to distant rich markets to help the country to earn foreign currency (Douma et al., 2017; Agriprofocus, n.d.). Joint efforts are directed to boost exports, reduce unemployment, improving women's condition and eradicate poverty and hunger in Ethiopia (Rebergen & Ahmed Shide, 2015; Nl, 2013).

There are an estimated 155 dutch investments in the coutnry out of which 80 per cent are expected to occur in the agribusiness sector (Douma et al., 2017). In the case of Dutch agribusiness investments four investment typologies had been identified, these are **highly specialised horticulture for highly competitive world markets**, **out-grower systems for export or domestic markets**, **Dairy/cattle breeding for the domestic market** and **a set of intermediation focused businesses** (Van Westen *et al.,* 2013). Next, Dutch SMEs investors targeted mostly the floricultural, and animal husbandry sectors (cattle for meat and dairy; chickens and pigs). Dutch SMEs are active all over Ethiopian agribusiness, e.g. horticultural production; consultancy and agricultural value chain development, agricultural input provision and supporting activities such as irrigation, logistics, packaging, storage, laboratory services, and soil improvement (Van Westen et al., 2013).

Dutch approach in Ethiopia well aligns to the interest of the Ethiopian government-led economic development plan, which aims to attract considerable FDIs to ignite a process of agricultural-led

modernisation (Poli, 2018). The NL and the Ethiopia government have a strong partnership agreement to support Ethiopian modernisation via agricultural development aimed for poverty eradication (Rebergen & Ahmed Shide, 2015).

# 4 Research design

## 4.1 *Research aim*

This research is an **exploratory** qualitative study on inclusive business approach and its relation to FNS, to do so it studies separately inclusive agribusiness activities and FNS in Ethiopia, to evaluate on a later stage the contributions of Dutch inclusive agribusiness to Ethiopia FNS. In order to gain a deeper understanding of these matters, this research asks the primary research question:

**How do different Dutch inclusive agribusiness investments contribute to FNS for Ethiopian nationals?**

To respond to the main research question, firstly qualitative data on Dutch-related agribusiness activity in Ethiopia were collected, and secondly qualitative data on the status quo of Ethiopian food insecurity. To collect primary data, this research conducted a fieldwork period in Addis Ababa where subjects were contacted from formal Dutch networks for agribusinesses in Ethiopia.

The first step was to collect data on Dutch-funded inclusive agribusinesses active in Ethiopia. This was done by adding two sub-questions to understand the qualities of Dutch agribusiness activity for poverty reduction. During this stage the IAB scan collected the necessary data to to the research sub-questions 1 & 2. To understand the qualities of agribusiness activities this research asks the following sub-questions:

**Sub-question 1**

- Which segments of the bottom of the economic pyramid population are targeted by Dutch agribusiness activities in Ethiopia?

*SQ-1* serves to collocate the poor into different social groups, this allows scoping down the segments most targeted by inclusive business interventions in Ethiopia.

**Sub-question 2**

- How do Dutch-related business interventions integrate poverty reduction within company activity?

*SQ-2* addresses the integration of poverty reduction in the business model to shed light on the quality of the integration within company activity.

The second research objective was an understanding of the characteristics of Ethiopian food insecurity at the national level of analysis. To do so, this research has run a desk study to collect secondary qualitative data on indicators of FNS in Ethiopia. By using the LEI UR monitoring system (MAGNET) described in Joosten et al. (2015). This study has drawn a broad picture of food insecurity in Ethiopia, and secondly, it identified national trends and vunerability aspects within the four dimensions of FNS. The level of analysis is also reflected in the research subquesions for this section. To describe the status quo of Ethiopian food insecurity, this research asked the following sub-questions:

**Sub-question 3**

- Which traits characterise food insecurity in Ethiopia?

**Sub-question 4**

- Which dimensions of FNS are most critical to the Ethiopian population?

Finally, the results of the empirical study and desk studies were aggregated together as the main results of this Master Thesis, *i.e Results III*. Primary data collected from respondents, so most often subjective data, were crossed to secondary data from desk research, mostly hard and weighted observations. The discussion elaborates upon the results of the two studies and the validity of the IAB scan. Finally, this research would go back to the primary research question in its *conclusion*.

## 4.2 *Methodology*

This research uses an exploratory case-study approach to business activities, integrated with an indicator analysis based on selected scientific and grey literature. The exploratory nature of this study arises from the lack of empirical data on how inclusive (agri)businesses operationalise value chain integration for poverty reduction (Likoko and Kini, 2018). Reinforced by poor empirical and analytical understanding of how inclusive agribusinesses contributes to FNS. Finally, the case-study approach is chosen both due to a low number of respondents, and to the fact that case-study analysis is mostly employed to depict pilot-projects for inclusive businesses, and to present their contributions to poverty reduction (*see for instance* - PRC, 2011; IFC, 2010).

Secondly, the indicator analysis followed a recent study by Joosten *et al.,* (2015); which had adopted the LEI Wageningen UR's monitoring system (MAGNET) to assess the contributions of horticultural development on FNS at the households level. This framework was preferred for desk research because of comprehensivity, high accessibility and soundness. The status quo of FNS in Ethiopia was investigated by researching data on the indicators presented in the framework. The MAGNET monitoring system works on a range of different indicators categorised under four FNS dimensions. A short description of all the four dimensions of FNS with selected indicators for this research is presented in the table at the of the section.

| **Dimension** | **Food Availability** | **Food Accessibility** | **Food Use and utilisation** | **Stability** |
|---|---|---|---|---|
| Description | It is the physical determinant of FNS referring to food supply including production, imports, and post-harvest losses. | It is the economic determinant on food choices representing the interaction of incomes and food prices. | It links food consumption to non-food choices like diets, cooking and storage facilities and education. | It is the temporal dimension of FNS referring to the long-term occurrence of the three physical determinants of FNS. |
| *Indicators* | *Domestic food production* (Joosten *et al.,* 2015)<br>*Producer price Index* (CSA; 2012)<br>*Commercial imports* (Joosten *et al.,* 2015)<br>*Post-harvest losses* (Joosten *et al.,* 2015) | *Agricutural income* (Joosten *et al.,* 2015)<br>*Income from labour* (Joosten *et al.,* 2015)<br>*Consumer prices index* (CSA, 2018) | *Diets* (Joosten *et al.,* 2015)<br>*Nutrient consumption* (Joosten *et al.,* 2015) | *Seasonality* (Hirvonen *et al.*, 2017)<br>*Shocks* (WFP, 2014) |

**Table 4.1 Indicators for *Results II* with sources in the literature**

Qualitative methods were preferred over quantitative methods due to the confidential nature of data on business activity. Moreover, due to the centrality of the concept of a business model, and its hazy and non-numerical nature, qualitative methods seemed apter to respond to the primary research question. As empirical data are often subjective, the successive indicator analysis was integrated to verify if cases studies were actually targeting relevant dimensions of FNS. It was thought that this would have added an objective benchmark before jumping to conclusions. Data collected from the scan are also triangulated against secondary data on PSI and FDOV projects, and

a booklet developed by consultants at F&S Ethiopia to report on FSRE funding (*See below table* 4.2).

Finally, this research had also a **participatory** methodology to the livelihoods of business managers in Ethiopia with the aim of intensifying their inclusive outcomes and impacts. The IAB scan comes as a supportive tool for managers to set inclusive business strategy and to visualise eventual pitfalls and strengths in their inclusive business model. Also, finally, this research serves **monitoring and evaluative purposes** as part of the greater *Follow-the-Food-Project.* Hopefully, data and methodologies in this research will support the overall success of the initiative that investigates contributions to poverty reduction and sustainability of Dutch agribusiness FDIs.

## 4.3 *Research Framework*

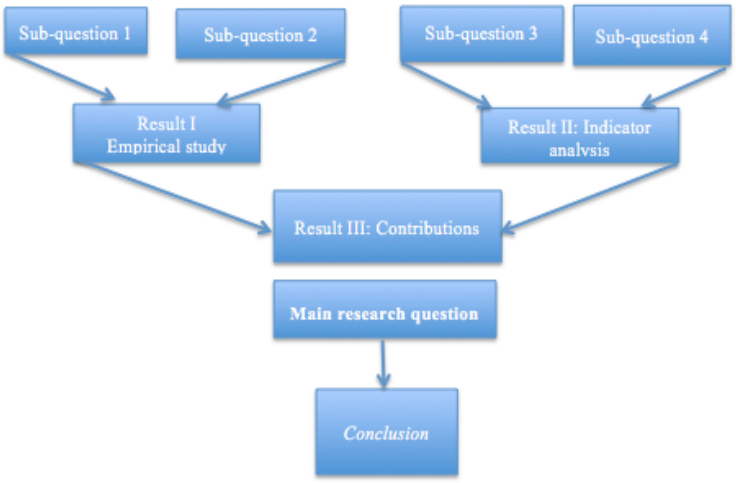



Figure 4.1 Research framework

On the left, **figure 4.1** presents the research framework to the reader. The empirical study was conducted in Addis Ababa at *Fair & Sustainable* Ethiopia. During the empirical study, the IAB scan was verified in partnership with Oscar Geerts. The IAB was revised, to be as accessible as possible for subjects of this study. At this stage, empirical research also required a great deal of effort to map Dutch agribusiness investments in the country. So, a number of informal meetings at the Dutch embassy, and other non-governmental organisations such as AgriProfocus, ENTAG, were performed to gain access to the community of Dutch investors.

Empirical results would be introduced under the form of six case-studies of inclusive agribusiness approach in Ethiopia. Secondly, results of extensive desk research served to respond to research subquestions 3 & 4. Desk research analysed eleven measurable and non-measurable indicators depicting the four established dimensions of FNS: *availability, accessibility*, *use and utilisation, stability.*

Finally, results for empirical and desk results would be merged together, to mapp the contributions of each business case to one or more dimensions of FNS. To do so, data for each company were matched to one or more indicators of FNS; and finally linked to the pertaining dimension of FNS (*see a visual example in figure 4.2 on the side*). This analysis allowed the research to test the hypothesis, and understand the links between inclusive activity and the most significant number of indicators. Lastly, this model would support the process of responding to the primary research question in the conclusion of this Master Thesis (*see figure 4.1*).

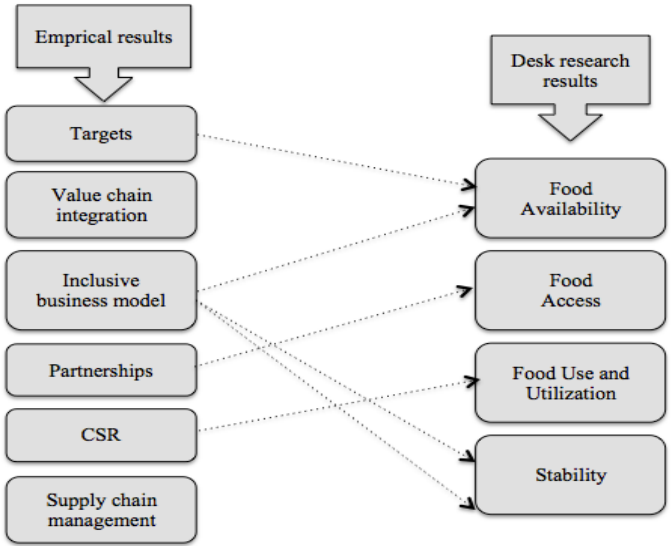



Figure 4.2 - Categorization model in *Results III*

| | |
|---|---|
| **AgriProFocus**<br>AgriProFocus is the Dutch network that ties together businesses, civil society, knowledge institutes and governments working towards FNS. AgriProFocus supports agribusiness entrepeneurs worldwide, with a special on social and environmental impacts | **PSI**<br>The Private Sector Investment Programme, was a subsidy programme providing funding to Dutch and non-Dutch companies to run pilot investment, in cooperation with a local business partners world wide. |
| **The Embassy of the Kingdom of the Netherlands (EKN) in Addis Ababa.**<br>The Embassy is actively involved in supporting Dutch entrepeneurs throughout all the necessary steps to iniatiate business in Ethiopia. And to defend the interests as well as legitimate rights of Dutch Nationals in the country. | **FDOV**<br>The Facility for Sustainable Entrepreneurship and Food Security is a fund encouraging cross sector partnership between Dutch Ministry of Foreign Affairs, civil actors, and private companies, in the field of FNS and private sector development worlwide. |
| **ENTAG**<br>Ethiopia-Netherlands Trade for Agricultural Growth works in cooperation with the EKN and the Wageningen UR to support agribusinesses in aquaculture, spices, oilseeds, poulty and legumes in Ethiopia. | **FSRE fund**<br>Food Security and Rural Entrepreneurship Fund was established by EKN, and managed by AgriProFocus Ethiopia. The fund was set up to fiance rural entrepeneurship to improve local food security of directed towards producer organisations, SMEs, and family farmers |

Table - 4.2 presents the list of formal networks employed during participant recruitment.

## 4.4 *Data collection*

### 4.4.1 *Empirical research*

Empirical data collection was conducted over a three months period from May to July in Addis Ababa, the Ethiopian capital. A total of 24 business managers were introduced to the IAB scan, and six finally adopted it. Empirical data collection for this research was limited to the use of the IAB scan to describe companies activity. This methodology was preferred over structured and semi-structured interviews. One of the objectives of this research is to prove the validity of the IAB scan as a tool for research on inclusive agribusiness.

The IAB scan is an experimental data collection tool, but it is not unique, and it draws from other existing projects developed by *Ministries*, private associations, and international organizations. Moreover, Ethiopia-Dutch Trade for Agricultural Growth (ENTAG), has worked on a similar tool to scan inclusivity. Yet, reportedly, without success. Finally, the last stage of the scan was developed under the supervision of Oscar Geerts, *Business Development Consultant* at Fair & Sustainable, Ethiopia.

Also, the IAB scan represented the participatory nature of this research which was run in partnership with Fair & Sustainable Ethiopia, and aimed to provide support to Dutch agribusinesses following the recent protests against foreign farms occurred in Ethiopia in between February and April 2018. The scan was structured into seven modules: one small-scale survey and six modules. The survey collects data about company's characteristics, *i.e.* nationality, value chains of operation, size, nature of the FDI project, supply chain of operation, CSR approach, adoption of a pro-poor

business model, stages of the supply chain where a company has operated. The other six modules collect data on qualities that make the company an inclusive agribusiness.

To recruit participants and identify the study population this study adopted the *formal network participant recruitment method* as described in Hennink et *al.*, (2010). Formal networks method is a strategy based on identyfing the opportunity, *i.e. location, formal event, list of companies enrolled into an association* - where the study population would be concetrated, hence easier to access (*ibid*); adopting this method participants were firstly identified by looking at *The Private Sector Investment Programme* (*PSI*), Facility for Sustainable Entrepreneurship and Food Security (FDOV), and at *Food Security* and *Rural Entrepreneurship Fund* (FSRE). Secondly, company details were researched either online, or formally demanded to associations such as *Netherlands embassy in Addis Ababa, Agriprofocus,* and finally *the Ethiopia Netherland trade for Agricultural Growth (ENTAG)*. Indeed, by looking at formal networks a large amount of information on subject population was readily available. This technique had proved particularly successful for a highly fragmented study population, where players barely knew about each others.

Importantly, this research was looking for businesses operationalizing the inclusive business approach into agriculture. Unfortunately, it had not possible to run a prelimanry contact with companies in the study population due to lack of information and time. Thus, this study assumed the companies recipents of Dutch funding to be inclusive, in the sense of cooperating for poverty reduction in Ethiopia. Participants recruitment had been facilitated by the fact that this research has studied companies with access to Dutch funding. Such companies run operations under a higher than average degrees of formality indeed.

A number total of 48 agribusiness companies and investors were identified in Ethiopia in the three formal networks of the PSI, FDOV and FSRE investment projects (*see below* table 4.3). Then, 24 companies were contacted whose managers were invited for a meeting; out of these, and 18 subjects actually met, and finally, 6 decided to adopt the scan. Business managers were invited for a meeting, usually on company venue, or in a public space, and introduced to the methodology of this research, and trained to use the scan. Then, participants were invited to share the scan back. The decision use the IAB scan as an independent data collection tool had the purpose of not influencing respondents, and therefore avoiding them giving *the best possible answer* by asking the interviewer what they should write. Some respondents were not familiar with the terminology in the scan, and in three cases it was necessary to fill the scan as an interview.

Figure 4.3 - Just outside the office of one of the respondents.

| Contacted companies details | | | Participation to the scan | | |
|---|---|---|---|---|---|
| *Company name* | *Contact* | *Project* | *YES* | *Agreed, But no participation* | *NO* |
| Africa Sustainable Aquaculture plc | Alwin Quispel - a.quispel@asanl.com | FSRE | | | X |
| APINEC Agro Industry PLC | Wubishet Adugna +251 (0) 911407360 | FSRE | | | X |
| AQ Roses, PLC | Frank Ammerlan - frank@aqroses.com | PSI | | | X |
| Bale Green PLC | Milion - balegreeninvestment@gmail.com | FSRE | X | | |
| Baro Flowers, PLC | n/a - baroexport@gmail.com | FSRE | X | | |
| Belka PLC | Mestawot Demeke <mestyd@yahoo.com> | PSI | | | X |
| Bop Innovation Center | Hiwot Shimeles - shimeles@bopinc.org | FDOV | | | X |
| Delma Agri-Business, PLC | Molla Feleke (PhD) - mulluexport@gmail.com | PSI | X | | |
| Ed Stelar Trading PLC | Kasahun Hmariam - kasahun_khmariam@yahoo.com | PSI | X | | |
| Farm organic, PLC | Hussen Ahmed - hussen.ahmed@gmail.com | PSI | | X | |
| FeedCo Animal Feeds, PLC | Raj Dhorda - raj@riftcot.com | PSI | | X | |
| Graze Land Farm Agro Industry PLC | Ephrem Barkessa - ebark2014@gmail.com | PSI | | | X |
| Hilina Foods Processing Center PlC | Hilina Belete - hbelete@hilinafoodseth.com | PSI | | X | |
| Holland Dairy PlC | Jacob Nutma - jacobnutma@gmail.com | PSI | X | | |
| Kifle Bulo Apple Seedling Producer | Kifle Bulo - kiflebulo@yahoo.com | FSRE | | X | |
| Moyee Coffee Ethiopia PLC | Abenezer Mechale - abenezersm@gmail.com | PSI | X | | |
| Nati Coffee and Spices PLC | Getachew Mamo - getachew@natispices.com | FSRE | | X | |
| Oromiya Seed Enterprise, | Diriba Regassa - diribaregassag@gmail.com | FDOV | | | |
| Senselet Food Processing PLC | N/A - cw@senseletfoodprocessing.com | FDOV | | X | |
| Soil and More PLC | Hussen Ahmed - hussen.ahmed@gmail.com | PSI | | X | |
| Solargrow PLC | Jan van de Haar - solagrow@gmail.com | FDOV | | | X |
| Syngenta Seeds PLC | +215 116 633 069 | FDOV | | | X |
| TGT Enterprise, PLC | Mahalet Solomon - msolomona@gmail.com | FDOV | | X | |
| Veris investments | Chris Wijnterp - cw@senseletfoodprocessing.com | FDOV | | | X |

Table - 4.3 Identified study population active in Ethiopia.

### 4.4.2 *Desk research*

This research collected secondary data to describe eleven indicators of FNS in Ethiopia. The indicator analysis employed both quantitative and qualitative data analysis, retrieved as tables, figures and datasets from a variety of different sources: data providers such as *Kknoema.org* or *Faostat*, scientific papers, country reports and survey issued by Ethiopian Central Statistical Agency (CSA).

## 4.5 *Data analysis*

### 4.5.1 *Empirical research: IAB scan*

This research adopts a deductive approach to qualitative data analysis. As described in Hennink et *al.*, (2010), deductive codes originate from theory in scientific literature. Deductive codes are not developed by reading data, and therefore this research does not employ grounded theory. In the IAB scab data are collected through these six modules, each of which represents a code subsequently used during data analysis. Hence, the scan does not only collect but also categorises data, following predetermined deductions from the literature.

The codes for empirical research are *targets, value chain integration, inclusive business model, partnerships, CSR,* and *responsible supply chain management*. Codes were selected at the onset of this research, because to their fundamental relation to the status of the inclusive agribusiness at different cycles of project design, a rationale for this selection can be found in ***Chapter 2*** - **Theoretical frameworks**. Furthermore, the first module in the data collection tool was a small-scale survey that was presented before each case study, and served to design a short description of of each company as well as inter company comparison.

Although the application of deductive codes could have serious drawbacks, such as missing unexpected information, the structure of this research naturally leaned toward deduction. Multiple reasons has determined this choice: first, the IAB scan collected data on selected categories of each inclusive company. So data collection was more similar to a hard-structured interview than a semistructured one. Respondents have described their perception of concepts that were presented to them; and therefore it was hardly possible to use an inductive approach without falling into some biases. Second, this choice allowed data to be analysed following the priority expressed by the literature, and rigidity has added consistency to the data analysis stage. Lastly, this methodology was beneficial to visualise companies as separated cases during data analysis, as the IAB scan would create a separate case for each company, making data analysis requiring minimum efforts.

### 4.5.2 *Desk research: Food security*

In the section *Results* II a qualitative approach to FNS had been adopted to investigate the macro level of FNS in Ethiopia. Data analysis was performed to draw trends of the various indicators of FNS and the characteristics of the food insecure in Ethiopia, rather than counting the number of food insecure. To do so, an indicator analysis was performed to describe the status quo of FNS in Ethiopia. For this study, data were secondary and most often already processed. Data were analysed on an indicator basis, grouped under one of the four dimensions of FNS. Data analysis served to map the vulnerability context of the Ethiopian population, and establish a background to direct the contributions of each of the different case studies.

## 4.6 *Limitations*

### 4.6.1 *Empirical research*

First, the experimental nature of IAB scan was the first limitation to this study. In fact, the data collection was used in this study for the first time. This resulted into the lack of an established methodology to use the IAB scan leading to an adventorous data collection process. The latter has reduced the amount of participants recruited for this research; in fact, out of 14 businesses actually met only 6 sent the filled scan back to the researcher.

This limited he number of participants has represented the second limitation to the empirical study. This limitation restricted the understanding of the spectrum of activities performed by Dutch

agribusinesses, and overall the possibility to generalize results. Also, a low participant number may have restricted the possibility to establish a complete and sound theoretical link between different inclusive agribusinesses and FNS.

Another limitation of the empirical study was due to the lack of actual fieldwork out of Addis Ababa. No companies were visitied, and company's stakeholders were not contacted, nor interviewed. So, this largely limited a more complete understanding of actual contributions of businesses to FNS. In fact, the precious contributions of the fieldwork amounted to verifying the IAB scan at F & S.

Lastly, this study is also limited by adopting only deductive codes, this limitations is a sum and a reflection of the abovementioned limitations. As suggested in Hennink *et al.,* (2010) deductive codes, based on a rigid literature study, may limit the discovery of unexpected results and information hidden in the data. In fact, the large amount of insights resulting from talking with business managers were not included into the study, possibly limiting additional results such as *the challenges of performing inclusive business in Ethiopia,* or *negative impacts resulting from business operations.*

### 4.6.2 *Desk research*

Desk research is also limited by a numer of factors. Data for LMI countries are usually hardly available in good quality. Indeed, even when the Ethiopian CSA was the main provider for data, it was not possible to use the same base year to collect data because the base year for data was not optimal. For instance, data on price fluctuation were available from 2009 to 2012. Also different sources reported data with a high degree of difference; this limitation affected indicators about yields, incomes, post-harvest-losses (PHL), imports.

Data quality was a significant limitation for example to describe prices and price changes, as in Ethiopia inflation is skyrocketing. Also, in some cases, the lack of data on prices for food baskets in Ethiopia, led this research to the use of producer prices and consumer price indeces (PPI and CPI respectively). These are generally used to monitor price trends, but they limit the ability of this research to understand the impact of food prices on agricultural incomes and food access.

Moreover, secondary data were the result of other studies and therefore do not produce new knowledge FNS dynamics in Ethiopia. To overcome this limitations, data were selected from highest quality sources such as survey reports, and independent data provider organisations; and then triangulated with a significant number of scientific literature studies. Rarely, fieldwork observations were added to give consistency.

Finally, the last significant limitation to this study was the scale of analysis. Desk research was conducted about macro trends, and indicators about FNS were analysed at the national scale. The desk study has adopted national aggregates instead of regional ones; this also limited the validity of results, as regional differences are very significant to poverty and FNS in Ethiopia. This choice also meant that desk research does not refer to the household dimension, which is highly relevant in the context FNS studies. Such an approach can be attributed to lack of data quality, as well as budgetary reasons.

# 5 Results I: Inclusive business activities

This chapter presents the results of empirical research gathered during fieldwork in Addis Ababa. The results address sub-question 1 & 2: *Which segments of the bottom of the economic pyramid population are targeted by Dutch agribusiness activities in Ethiopia?* - and - *How do Dutch-related business interventions integrate poverty reduction within company activity?*. Inclusive agribusiness activities are presented as described by managers in the data collection tool. Firstly, the result of the company survey are presented; secondly, companies are described using the six dimensions in the IAB scan, *i.e.* targets, value chain integration, inclusive business model, partnerships, CSR, and responsible supply chain management. Also, results for each dimension are interpreted and reported in the tables.

## 5.1 ***Balegreen spices and grain development PLC***

### 5.1.1 *Company profile*

| | | | |
|---|---|---|---|
| **Nationality** | **Ethiopian** | Value chains | **Spices, pulses and grain** |
| **FDI project** | None | **Stages of the supply chain** | Farming, input supply and trading |
| **Active since** | 2012 | **Market destination** | National and export markets |
| **Company size** | SME | **Business model** | Pro-poor business model |
| Funding | FSRE Fund | **CSR classification** | Commercial firm |

| | |
|---|---|
| **Target** | Smallholder farmers |
| **a) Perceived Needs** | Selected seeds, combined harvesting machinery, fertilisers, fungicides, pesticides, training and direct market access with low transaction costs. |
| **Value chain integration** | Suppliers for spices, grains and pulses |
| **a) Benefits for the company** | Access to land |
| **b) Benefits for the poor** | Market access, productivity-raising inputs, post-harvesting technology and training on agricultural and environmental practices |
| **Integration of poverty reduction in the business model** | Core integration |
| **Partnerships** | Civil, private and public sectors |
| **CSR** | Respect national regulation |
| **Supply chain management** | Respect national regulation |

**Table 5.1 -** Results of company survey (above) - and Results on company inclusive activity (below)

Balegreen is a small-medium sized Ethiopian agribusiness company with less than 250 employees operating across rural Ethiopia. It operates in Ethiopia since 2012 at various stages of the supply chain for spices, pulses and grains. It works mostly for local markets, but it also retains export licenses for grains, which is rare in Ethiopia as the government often applies bans on cereal export. The company had received funding under the FSRE to expand operations in rural Ethiopia, which amount to farming, input supply and trading. Finally, the owner reported the company not having a CSR policy, but he asserted that the company adopts a pro-poor business model.

### 5.1.2 *The target of inclusive business*

According to the owner and GM, smallholder farmers are the target of its company, which he perceived in need of seeds, fertilisers, and post-harvesting technology.

### 5.1.3 *Value chain integration*

Small-holders are integrated by the firm as suppliers to produce spices, pulses and grains. Smallholders will help the firm to expand production by providing access to land. In return, the firm

will provide several benefits to farmers, including market access, productivity-raising inputs and training on agricultural and environmental practices. According to the owner, market access will result in higher and more stable incomes as the firm will provide better prices. Secondly, productivity-raising inputs include better seeds, fertilisers and on-farm post-harvesting technologies. The firm also provides farmers with on-farm processing technologies that would be not accessible otherwise. Agricultural technology allows the firm to increase smallholders productivity substantially. Finally, training will coach farmers to work together on contract farming, and educate them on agronomist practices including soil erosion monitoring.

### 5.1.4 *Inclusive business model*

The firms use contract farming to produce spices, grains and pulses with smallholders. Firstly, it distributes inputs and then collects final products. The business model entails interdependence between smallholder agriculture and company core competencies. The GM stated that the company could grow as long as smallholders can raise their productivity. Hence, poverty reduction seems to be integrated within core competencies. The benefits of integration amount to incomes, technological as well as agricultural inputs to smallholders.

### 5.1.5 *Partnerships*

This section proved to be more difficult to address by the respondent. For instance, he only listed three partners, without mentioning neither Inter Church Cooperation Organization (ICCO), nor AgriProfocus which has provided his company with access to fundings. Reportedly, the company has partnering agreements with both civil, private and public sector, but the respondent could not recall the names of those partners. Firstly, Balegreen partners with an American NGO to access post harvesting technologies, secondly it partners with small-holder unions to organise distribution, and finally, it partners with Ethiopian ATA providing information about working with smallholders.

### 5.1.6 *CSR*

The company has no specific risk management system.

### 5.1.7 *Responsible supply chain management*

The GM reported the company to work under national regulation regarding both environmental and social impact issues. However the respondent claimed that Balegreen's strategy is "to lead smallholders to growth, this will have a positive impact on their tenure rights and access to natural resources."

## 5.2 ***Baro Flower PLC***

### 5.2.1 *Company profile*

| **Nationality** | **Ethiopian** | Value chains | **Avocado seedlings** |
|---|---|---|---|
| **FDI project** | None | **Stages of the supply chain** | Farming - inputs supply |
| **Active since** | 2004 | **Market destination** | National market |
| **Company size** | Large enterprise | **Business model** | Pro-poor business model |
| Funding | FSRE Fund | **CSR classification** | Commercial firm |

Baroflower is a small-medium sized Ethiopian agribusiness company with less than 250 employees, operating across rural Ethiopia. It operates in Ethiopia since 2004 at various stages of the value chain for improved avocado and avocado seedlings. The company works with smallholders purchasing rootstocks, and sell improved fruit-bearing seedlings to farmers. The company received funding under the FSRE to run trials and distribute seedlings to raise awareness on avocado production. Baro Flower PLC's operations amount to farming, input supply and trading. The respondent for the IAB scan was the owner and GM. He asserted that the company adopts a pro-poor business model.

| | |
|---|---|
| **Target** | Smallholder farmers, rural female-headed households, youths and female farmers. |
| **a) Perceived Needs** | Additional income or income to purchase additional foods that cannot be produced on the farm. Farmers need training and being aware of the benefits of avocado production. |
| **Value chain integration** | Rural poor as waged workers, smallholder farmers as suppliers of rootstocks, rural households as costumes for improved avocado seedlings and suppliers for avocado fruit. |
| **a) Benefits for the company** | Access to inputs, access to avocado supply |
| **b) Benefits for the poor** | Income, dietary diversity, training |
| **Integration of poverty reduction in the business model** | Core integration |
| **Partnerships** | Civil, private and public sectors |
| **CSR** | Respect national regulation |
| **Supply chain management** | Compensation for land issues; social and environmental impact. |

**Table 5.2 -** Results of company survey (above) - and Results on company inclusive activity (Below)

### 5.2.2 *The target of inclusive business*

Baro Flower PLC targets smallholder farmers; rural female-headed households as well as youths and female farmers. According to the respondent (GM), the rural poor need waged work to increase their income. Moreover, rural households need additional income or income to purchase additional foods that cannot produce on the farm. Finally, within the scope of company activity, *i.e. value* the value chain for avocado, farmers need training and awareness about the benefits of avocado production.

### 5.2.3 *Value chain integration*

The firm integrates small-holders as suppliers of rootstocks, and customers for improved avocado seedlings, and finally as suppliers again this time for avocado. The firm also employs a permanent 20 people and 100 temporary labourers as on-farm labourers that include youth and women from nearby communities. Finally, in the close future, the firm will integrate rural households as customers for avocado seedlings to be planted on the rural household. This is expected to generate a source of additional income as well as dietary diversity. Benefits to rural poor amount to inputs provision, seedling farming, seedling trade, avocado market creation and logistics (collection and export), training and awareness raising.

### 5.2.4 *Inclusive business model*

The company can be defined as an agricultural intermediation firm because it works at multiple stages of the supply chain organising procurement, farming, distribution, collection and finally export. The poor are integrated within the core competencies of the value chain as suppliers for inputs, customers, and suppliers for the final product. To be profitable, the company sells improved avocado seedlings to commercially oriented agricultural farms. In order to grow the firm needs smallholder to start producing avocado to sell surpluses back to the firm. The firm will not grow without smallholders as these have the majority of land in Ethiopia.

### 5.2.5 *Partnerships*

The respondent reported to be in partnering agreements with both civil, private and public partners. Firstly, Baro Flower grew from partnering with Inter Church Cooperation Organization (ICCO), USAID and an Israeli NGO, which in the first case provided access to finance to run free trials in

rural households. In the latter two cases, NGOs organised training on avocado value chain for him and his wife as well as support to organise the export market. Secondly, the respondent partners with unions to organise the supply of rootstocks for avocado propagation. Finally, the company has a partnership with the Ethiopian ATA providing information about working with smallholders.

### 5.2.6 *CSR*

The firm has no risk management system nor internal codes of conduct. The respondent reported to work under national legislation. Also, the respondent claimed his knowledge of corporate social responsibility to be limited.

### 5.2.7 *Responsible Supply chain management*

The GM reported the company to work under national regulation regarding both environmental and social impact issues. However, the firm underwent both environmental and social impact assessment to acquire land from the government. Reportedly, the firm has a low environmental impact as it uses natural fertilisers, *i.e.* manure from surrounding farms. Regarding land issues, the GM explained that he had paid a sum as compensation for those who lost access to land. Moreover, the company is embedded in the local community as it employes job-demanding youth and women from as occasional waged labourers.

## 5.3 ***Moye Coffee Roaster PLC***

### 5.3.1 *Company profile*

| **Nationality** | **Ethiopian Dutch** | Value chains | **Coffee** |
|---|---|---|---|
| **FDI project** | Joint Venture | **Stages of the supply chain** | Processing Trading Wholesaling |
| **Active since** | N/A | **Market destination** | Both export and national markets |
| **Company size** | SMEs | **Business model** | Pro-poor |
| Funding | No | **CSR classification** | A commercial firm with CSR |

| | |
|---|---|
| **Target** | coffee producers |
| **a) Perceived Needs** | Better prices and market access for coffee producers, income for urban population |
| **Value chain integration** | Coffee producers are integrated as suppliers, urban people as workers |
| **a) Benefits for the company** | Access to agricultural raw materials |
| **b) Benefits for the poor** | Better prices, reliable market access and employment |
| **Integration of poverty reduction in the business model** | Not focused on poverty reduction |
| **Partnerships** | Private partnership |
| **CSR** | ISO certification for export, fair trade policies |
| **Supply chain management** | Low environmental impacts |

**Table 5.3 -** Results of company survey (above) - and Results on company inclusive activity (Below)

Moye Coffee Roaster PLC is a small-medium sized Ethiopian-Dutch joint venture, with less than 250 employees operating in Addis Ababa, operations amount to procuring, processing and trading coffee. Moye Coffee works both for export markets, and national markets, and it is ISO certified for export. The company received funding under the PSI project to set a fair value chain for coffee. The IAB was taken by the supply chain specialist who was not aware of the PSI programme. Also, he claimed the company to be a commercial firm with a CSR policy and a pro-poor business model.

### 5.3.2 *The target of inclusive business*

The target of inclusive business amounts to coffee producers and urban dwellers. The first need reliable buyers and better prices, while the latter need reliable forms of waged employment.

### 5.3.3 *Value chain integration*

There is no actual evidence that the firm integrates poor people.

### 5.3.4 *Inclusive business model*

The firm buys from farmers association, roasts, packages and trades coffee to national and international markets. Poverty reduction is not within the firm's core value chain. Reasons to start the business did not amount to pro-poor orientation, rather business rose from the gap coffee farmers in Ethiopia and a low number of coffee-roasting facilities. However, the focus on social impacts exists as an indirect one. The firm reportedly helps “rural farmers to help themselves". According to the respondent, processing yields benefits for the whole nation. The company adds a stage of value creation in Ethiopia, leading for example to farmers enjoying better prices and urban employment.

### 5.3.5 *Partnerships*

The company reportedly partners with Tega & Tula farms, a commercially oriented export-farm employing several hundred labourers in a fair-chain business model, which supplies the green coffee to Moye.

### 5.3.6 *CSR*

Finally, the company works with ISO certification for export, even though the respondent did not mention them, certifications were exhibited on the company facility in Addis Ababa. The firm holds fair trade policies, implemented in partnership with Tega & Tula farms. Reportedly, the firm does not reduce economic risks for its suppliers, which must adapt to volatile coffee prices.

### 5.3.7 *Responsible Supply chain management*

The company is not directly involved in farming, so the respondent did not report on land issues. It claimed that environmental impact as extremely low as the coffee is forest grown and handpicked.

## 5.4 ***Holland Dairy PLC***

### 5.4.1 *Company profile*

*Company profile*

| | | | |
|---|---|---|---|
| **Nationality** | Dutch | **Value chains** | Milk |
| **FDI project** | N/A | **Stages of the supply chain** | Processing |
| **Active since** | 2008 | **Market destination** | National market |
| **Company size** | SMEs | **Business model** | Pro-poor |
| Funding | No | **CSR classification** | Commercial Firm |

Holland Dairy PLC is a small-medium sized Dutch agribusiness company with less than 250 employees. It operates in Ethiopia since 2008 processing milk to produce yoghurts and milk for national markets. The respondent reports the company to be a commercial firm using a pro-poor business model. The respondent is the deputy GM of Holland Dairy, he claims the company did not receive any funding from the Dutch government, yet reportedly Holland Diary is among the beneficiaries of the PSI project. Finally, it was not possible to meet the respondent in person, so he has sent back the document after a couple of weeks without completing the last three dimensions: partnerships, CSR, responsible agricultural supply chains

| | |
|---|---|
| **Target** | Costumers, livestock farmers and unemployed people |
| **a) Perceived Needs** | N/A |
| **Value chain integration** | Livestock producers as raw milk suppliers, rural populations as workers, Ethiopian population as customers for Dairy products |
| **a) Benefits for the company** | Access to agricultural raw materials |
| **b) Benefits for the poor** | Quality feeds and working-clothes organised milk collection network from farm to factory, free sanitary checkings, free water and electricity for employees and local communities for suppliers. Dietary diversity for Ethiopian population |
| **Integration of poverty reduction in the business model** | Not focused on poverty reduction |
| **Partnerships** | N/A |
| **CSR** | N/A |
| **Supply chain management** | N/A |

**Table 5.4 -** Results of company survey (above) - and Results on company inclusive activity (below)

### 5.4.2 *The target of inclusive business*

Holland Dairy PLC targets livestock farmers and unemployed people in rural Ethiopia. Hence, There is no evidence that the firm integrates the most vulnerable populations.

### 5.4.3 *Value chain integration*

The company integrates livestock producers as raw milk suppliers, rural populations as workers. In the first case, the company *Holland Dairy* provides them with training, working-clothes, organised milk collection network from farm to factory, free sanitary checkings, market access. Finally, the company also offers waged labour opportunities in the processing facilities.

### 5.4.4 *Inclusive business model*

The company produces high-quality dairy products, in doing so, procures from local livestock suppliers, it processes the milk into dairy products and then sells its products to retailers and wholesalers in Ethiopia. The company gives livestock producers a reliable source of income. Furthermore, it supports its suppliers providing them inputs to upgrade production, *i.e.* feeds, collection network, market access and aluminium milk cans to each farmer. Although the company does not integrate the poor directly into the business model, the respondent claimed that poverty reduction goes along with firms' activity because future growth will depend on the quality and quantity of locally produced milk.

## 5.5 ***Ed Stelar Food PLC***

### 5.5.1 *Company profile*

| **Nationality** | **Ethiopian Dutch shared** | Value chains | **Meat** |
|---|---|---|---|
| **FDI project** | Joint venture | **Stages of the supply chain** | Processing - Wholesaling |
| **Active since** | N\A | **Market destination** | Both export and national markets |
| **Company size** | SMEs | **Business model** | Pro-poor |
| Funding | PSI | **CSR classification** | A commercial firm with CSR |

**Table 5.5 -** Results of company survey (above) - and Results on company inclusive activity (below)

| | |
|---|---|
| **Target** | Livestock farmers and low and medium-skilled workers in urban areas |
| **a) Perceived Needs** | Jobs, income increase |
| **Value chain integration** | Low and medium-skilled professionals as workers; livestock producers as suppliers |
| **a) Benefits for the company** | Access to agricultural raw materials |
| **b) Benefits for the poor** | Jobs, market access for livestock producers, standardisation for sustainability, stable and reliable incomes, inputs for livestock producers |
| **Integration of poverty in the business model** | Not focused on poverty reduction |
| **Partnerships** | Private and public sectors |
| **CSR** | Internal codes of conducts, community engagement, stakeholder management |
| **Supply chain management** | Traceability, input standardisation for sustainability |

Ed Stelar Foods PLC is a small-medium size Dutch-Ethiopian joint venture, with less than 250 employees, it was created to set up a processing factory for frozen meat products. The company received funding under the PSI programme to set up a food processing factory. Company operations are not yet active, but the company will operate mostly at the processing and wholesaling stages of chicken and beef supply chains, and operations amount to farming, input supply and trading. It will work both for national and export markets. The company director is the respondent for the IAB scan. Finally, the respondent asserted that the company is a commercial firm with CSR policy that adopts a pro-poor business model.

### 5.5.2 *The target of inclusive business*

The targets of inclusive intervention amount to low and medium-skilled workers in urban areas and livestock farmers in rural areas.

### 5.5.3 *Value chain integration*

The firm integrates urban low and medium-skilled professionals as workers, providing them with income and other benefits. Also, the firm relies on rural suppliers for chicken and beef, providing them with a reliable income source and generating a market opportunity for livestock.

### 5.5.4 *Inclusive business model*

The firm procures livestock from rural and urban areas, processes it in meat products and freezes it; finally, it will sell frozen meat both to national and international markets. Essential to the business model is the supply chain, as operations are highly dependent on livestock producers. Finally, the respondents pinpointed that the firm will create value to Ethiopia because it is the first at processing factory for deep-frozen meat in the country, which will increase indirect job opportunities, as the market for livestock will grow. While the business model relies heavily on its supply chain, the respondent did not mention exactly how this will address poverty reduction.

### 5.5.5 *Partnerships*

The respondent acknowledged that inclusiveness would add extra costs for capacity building across the supply chain. So the firm entered an agreement with a bank to set the processing factory. The firm will also partners other private sector actors for quality certification of supplied inputs supply. Finally, the firm works in partnership with public agents to support local development projects.

### 5.5.6 *CSR*

The firm designs internal decision-making on national regulation, as well as more elaborated internal codes of conducts and yearly strategic management plan. According to the respondent the firm involved stakeholders in the yearly strategic plan. The significant stakeholders mentioned were suppliers, local communities, federal and regional government. Finally, the firm engages with the local communities providing access to clean water and clinic service nearby to its industrial plants.

### 5.5.7 *Responsible Supply chain management*

The company is not directly involved in farming, so the respondent did not perceive any land issues, nor any environmental risk. The firm has not yet undergone neither an environmental nor a social impact assessment, but it will implement them in the future. Finally, the firm applies traceability to its production, tight control over its supply chain reportedly exercising better sustainability performance on its suppliers.

## 5.6 ***Oromia Seed Enterprise***

### 5.6.1 *Company profile*

| **Nationality** | **Ethiopian** | Value chains | **21 crops** |
|---|---|---|---|
| **FDI project** | None | **Stages of the supply chain** | Farming, Input supply, Market information provision, trading, processing, service extension |
| **Active since** | N/A | **Market destination** | National markets |
| **Company size** | Large enterprise | **Business model** | Pro-poor |
| **Funding** | FDOV | **CSR classification** | A commercial firm with CSR |

**Table 5.6** - Results of company survey (above) - and Results on company inclusive activity

| | |
|---|---|
| **Target** | Highly vulnerable farmers, smallholders, rural households and female-headed households |
| **b) Perceived Needs** | Food self-sufficiency, road access, irrigation facilities, housing, and information, clean water and electricity |
| **Value chain integration** | Smallholders as customers for agricultural inputs such as seeds, information and farming technology; Rural workers as temporary/seasonal workers in rural areas; Smallholder farmers as seed suppliers under contract farming |
| **c) Benefits for the company** | Access to land, access to customers, reduction of social tension |
| **d) Benefits for the poor** | Access to employment, access to the market for seeds, access to improved seeds and crop varieties. |
| **Integration in the business model** | Core integration |
| **Partnerships** | Civil, private and public sectors |
| **CSR** | External audit, reports on financial and technical issues, good governance principles |
| **Supply chain management** | Special management for chemical wastes, work as compensation for land issues |

Oromia Seed Enterprise is a large Governmental Ethiopian enterprise (>1500 employees) established by the Oromia Regional Government to spread agricultural development and modernisation in the region. It operates in Ethiopia since 2008 at various stages of the agricultural supply chain for seeds producing more than 21 seeds species 70 seeds varieties. Moreover, the firm operates across national seed markets in input supply, market information provision, processing and service extension, i.e. agricultural technologies. Also, the respondent explained that the company takes part in large infrastructural projects. It is national market-oriented. The company is part of a Private to Public Partnership that received funding under the FDOV to support company operations.

The role of the respondent within the company is that of Seed Production and Productivity Improvement Coordinator.

### 5.6.2 *The target of inclusive business*

According to the respondent company's targets are highly vulnerable farmers, smallholders, rural households in general and female-headed households specifically. He noted that rural populations need food self-sufficiency, road access, irrigation facilities, housing, and information. While urban populations need housing, food self-sufficiency, road access, clean water and electricity.

### 5.6.3 *Value chain integration*

The company integrates smallholders as customers for agricultural inputs such as seeds, information and farming technology. The company also employs workers for temporary/seasonal on-farm activities in rural areas. Finally, it procures seeds operating with smallholder farmers under contract farming.

### 5.6.4 *Inclusive business model*

The firm produces different seeds nearly 21 crops and 70 varieties on land owned by the company and also contractually with farmers. Then it processes the seeds, that are then sold back to smallholder farmers, cooperative unions, NGOs and Agro-dealers. Integration in the business model is high because smallholder farmers represent the largest consumers group for affordable seeds. Momentarily the company integrates most vulnerable farmers freely as future customers. By giving them free seeds and support, the company will promptly raise awareness and reputation among farmer communities.

### 5.6.5 *Partnerships*

The respondent reported that the firm is in partnering agreements with both civil, private and public partners. Firstly, NGOs such as *BENEFIT*, *ISSD*, *CIMMYT* supports the company during seed production, seed demonstration and training for capacity building. Secondly, the company partners with Oromia Land and Environmental Protection Agency to produce more than three hundred fruit crop seedlings, and to dispose of chemical waste. Finally, the firm partners with chemical companies such as *Chemtex PLC*, *Lions International trading PLC*, *Makamba and Mokobu PLC*, and *Incotec* to access fertilisers that will be distributed in rural areas.

### 5.6.6 *CSR*

The firm relies on an external audit company to assess financial situation. It reports on operations including both financial and technical issues. The company also applies good governance principles to environmental and social issues. The respondent also reported that the company is working to access ISO certification scheme soon.

### 5.6.7 *Responsible Supply chain management*

The firm limits adverse impacts by working in partnership with Oromia Land and Environmental Protection Agency to manage seed treating chemicals and empty containers. Reportedly, land issues were sensitive to company operations during land acquisition. The land was provided by the government causing farmers' from nearby areas to protest. Consequently, the company had started prioritising youth and farmers to local communities. Also, farmers get free seeds reportedly.

## 5.7 ***Chapter summary and research sub-questions 1 & 2***

In this chapter, empirical results were presented as six case studies. In five cases out of six, the company was an SME. In three cases companies were fully Ethiopians, in two cases companies were Ethiopian Dutch joint ventures, and in one case the company was fully Dutch. In four cases,

the respondent for the scan was the GM or the owner of the company, and in two cases respondents had been generic business managers. Companies worked at different points of the value chains. For instace, half of the companies were directly involved in farming, three companies were involved in processing. All the respondents claimed their companies to employ a pro-poor business model, yet only three companies had been found to integrate the poor at the core of the value chain.

Moreover, it appears that Dutch-funded businesses have not always targeted the poor. Only the three Ethiopian companies targeted the most vulnerable groups, *i.e.* smallholders, female-headed households and rural households. Other companies, namely *Moye coffee PLC, Holland Dairy,* and *Ed Stelar PLC*, targeted groups without making explicit how the company would reduce poverty. In fact, suppliers may have had low productivity but also a better economic status than smallholder farmers. Furthermore, in such cases company strategy rarely aligned to the needs of the poor: the poor did not make the largest share of resources to the business model (G20, 2015).

On the contrary *Balegreen PLC* integrates poverty reduction within the core of the business as the company can grow if it will increase smallholders productivity; moreover, to scale up operations, *Baro flowers PLC* needs to convince smallholder farmers and rural household to start producing avocado and sell them to the company; and finally *Oromia Seed Enterprise* works for modernizing Ethiopian agriculture by producing and selling improved seeds at affordable prices.

# 6 Results II: FNS indicators analysis

In this chapter, results for the indicator analysis on FNS in Ethiopia are presented. In order to respond to research sub-question number 3[1], each indicator is analysed and presented individually within the approapriate dimension of FNS. While, at the end of each section, the main stress factors for each indicator are presented this way responding to research sub-question number 4[2]

## 6.1 *Food Availability*

### 6.1.1 *Domestic Food Production*

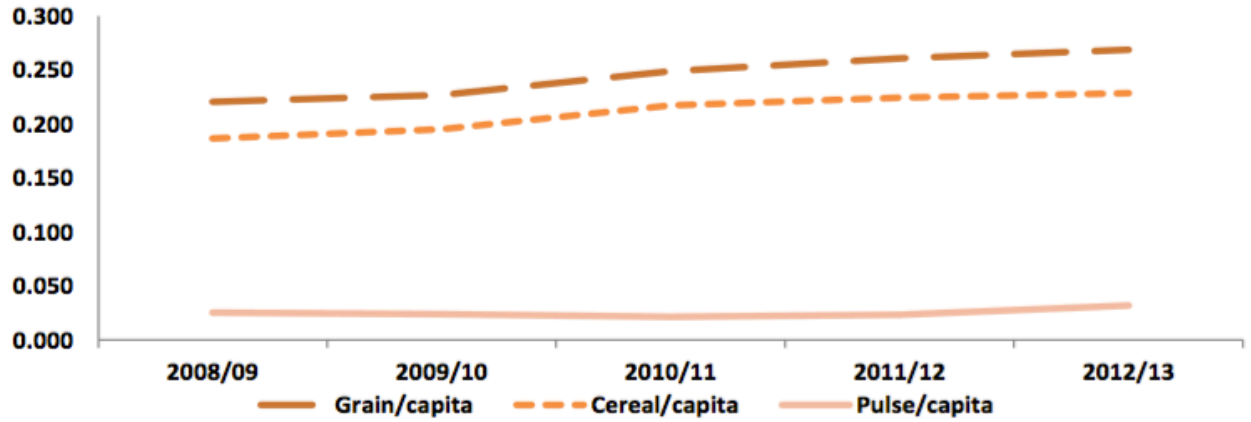



Figura 6.1 - Trends in per capita production, Source CSA - in WFP, 2014.

Food production in Ethiopia barely meets per capita food demand. Over the 2012/2013 total production of cereals pulses and grains amounted to 23 million tonnes in the country, which resulted in slightly more than 0,218 *tonnes/annum/percapita* considered the minimum treshold to meet basic dietary requirements (WFP, 2014). Moreover, production patterns may deviate from aggregated values; this is a serious problems to rural groups, especially during the lean season when food shortages become sensitive in the whole country causing food prices to soar - *see below section 6.4* (Hirvonen *et al.,* 2016).

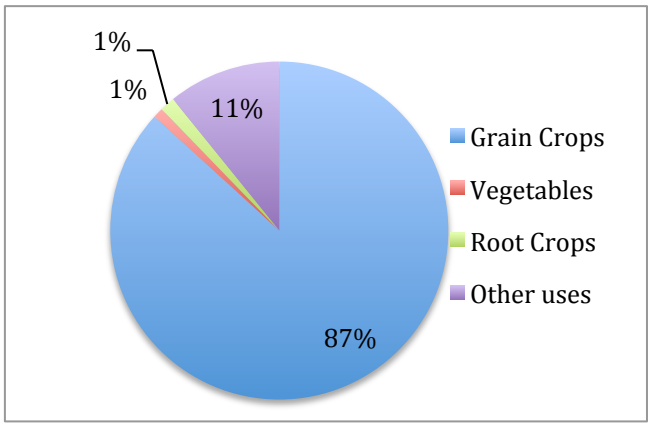



Figure 6.2 - Arable land devoted to crop type - self developed - data source: CSA, 2015

On average most extensively cultivated crops are grains, occupying 13 million of out of an estimated 15 million hectares of arable land; instead the share of arable land devoted to root crops and vegetables is less than one of *percent* of arable land (Knoema, 2018*;* CSA, 2015). Arable land is defined as the amount of agricultural area devoted to temporary crops, *e.g.* grains, and ploughed regularly (Eurostat, 2018). Slightly more than 1 per cent of total arable land is irrigated, 54 per cent fertilized, and 24 per cent was covered by pesticides (CSA, 2015). The lack of extensive irrigation condemns Ethiopian agriculture to rainfall dependency. In Ethiopia rainy seasons are two:

[1] SQ 3: Which traits characterize food insecurity in Ethiopia?
[2] SQ 4: Which dimensions of food security are critical to Ethiopian population?

[2] SQ 4: Which dimensions of food security are critical to Ethiopian population?

the *meher* and the *belg rainy seasons*. *Meher rains* start in June and last until early October generating 90 per cent of total crop production, the second occurs from the end of February to late May, yielding 10 per cent of total crop production (CSA, 2015). Rainfall dependency diminishes land productive capacity, and makes food production also vulnerable to droughts and climatic variability. For instance, Mohamed (2017) reported that an unpredictable and continued dry season led 28 million Ethiopians to food insecurity in 2015/2016.

Also, cultivated land holdings are the main source of food in rural areas, about 11 million smallholder farms are the engine behind Ethiopian agriculture, producing an estimated 95% of Ethiopian agricultural GDP (Deloitte, 2017); and cultivating 12 906 472 hectares, out of about 15 million (knoema, 2018; CSA, 2015). For instance, the average land used by rural household for agricultural production amounts to 1,48 hectares with 1,12 hectare arable. In small town areas the total land available amounted to 0,21 hectares (WB, 2017).

Crop yields are possibly the second most immediate indicator of food production. Yields indicate land productivity per hectare per crop type (t\ha). According to the literature Ethiopian crop yields are extremely low, and possibly among the lowest in the world (Baye, 2017; Mohamed, 2017). Noteworthy, something inbetween 7 - 21 per cent production is reused on-farm as a traditional source of seeds (CSA, 2015). In table 6.1, a list of yields for crop yields is reported for the FAOstat (2018) and the CSA (2015) different sources:

| *Data source* | *Faostat* | *CSA* |
|---|---|---|
| Crop type | t/ha | t/ha |
| Barley | 2,1 | 1,01 |
| Finger millet | 2,2 | *N/A* |
| Maize | 3,7 | *N/A* |
| Sorghum | 2,5 | 0,83 |
| Wheat | 2,7 | 1,4 |
| Soya beans | 2,3 | *N/A* |
| Sesame seed | 0,7 | *N/A* |
| Taro | 30 | *N/A* |
| Teff | 1,5 | 0,65 |

Table 6.1 - crop types for three different sources

Lastly, Ethiopia has the largest population of livestocks in SSA, these include cattle, sheep, goats, horse, donkeys, mules, camels, poultry and beehives, providing a source of meat as well as by-products such as leather, eggs, milk and dairy, honey (CSA, 2015). Ethiopian agriculture is characterized by widespread livestock production, which represents a sign of prestige and an asset during times of crisis (Baye, 2017; WB, 2017). Also, the dairy sector is also growing, milk production is generalized and total volume is over 3.0 billion liters (ENTAG, 2018)

### 6.1.2 *Producer price index*

To monitor food producer prices in Ethiopia, this research employs food producer price index (**PPI**) from 2006 to 2012. PPI depict yearly, or monthly, price variations since the base year of observation. PPI are concise yet fully informative pieces of data issued by the CSA[3]. Recorded prices were the ones paid to agricultural producers for their first transaction, also called *farm gate prices*, so PPI did not account for transaction costs (CSA, 2012).

[3] CSA - Ethiopian Central Statistical Agency

Also, it is important mentioning that price behavior had been reported for four food groups, as these together cover the majority of Ethiopian production (cereals, pulses, livestocks and cash crops) and supplemented with an aggregated food items index for cereals, pulses, oil seeds, vegetables, fruits, potato and other tubers, spices, livestock, livestock products and cash crops. Trends for PPI are shown in figure 6.3 - *see below*.

Price fluctuations had received attention as an indicator of food and nutrition security studies. Indeed, trends in food prices indicates abnormal conditions, sometimes forecasting variations in the food and nutrition security, that can go unnoted otherwise (FAO, 2018). Braun & Tadesse (2012) categorized three types of price behaviour: trends, spikes and volatily. The first refers to long term price growth, the latter two refer to short-term price behaviors: spikes means a sudden upward change in price, while volatility refers to sudden price fluctuations; the same categorical definitions had been used for this study. The trend for Ethiopian PPI indicates overall growth in prices since 2006 to 2012. Cereal prices exhibited volatility, livestock prices exhibited stable growth, spikes for cash crops and finally steady growth for pulse prices. (*see figure 6.3 below*).

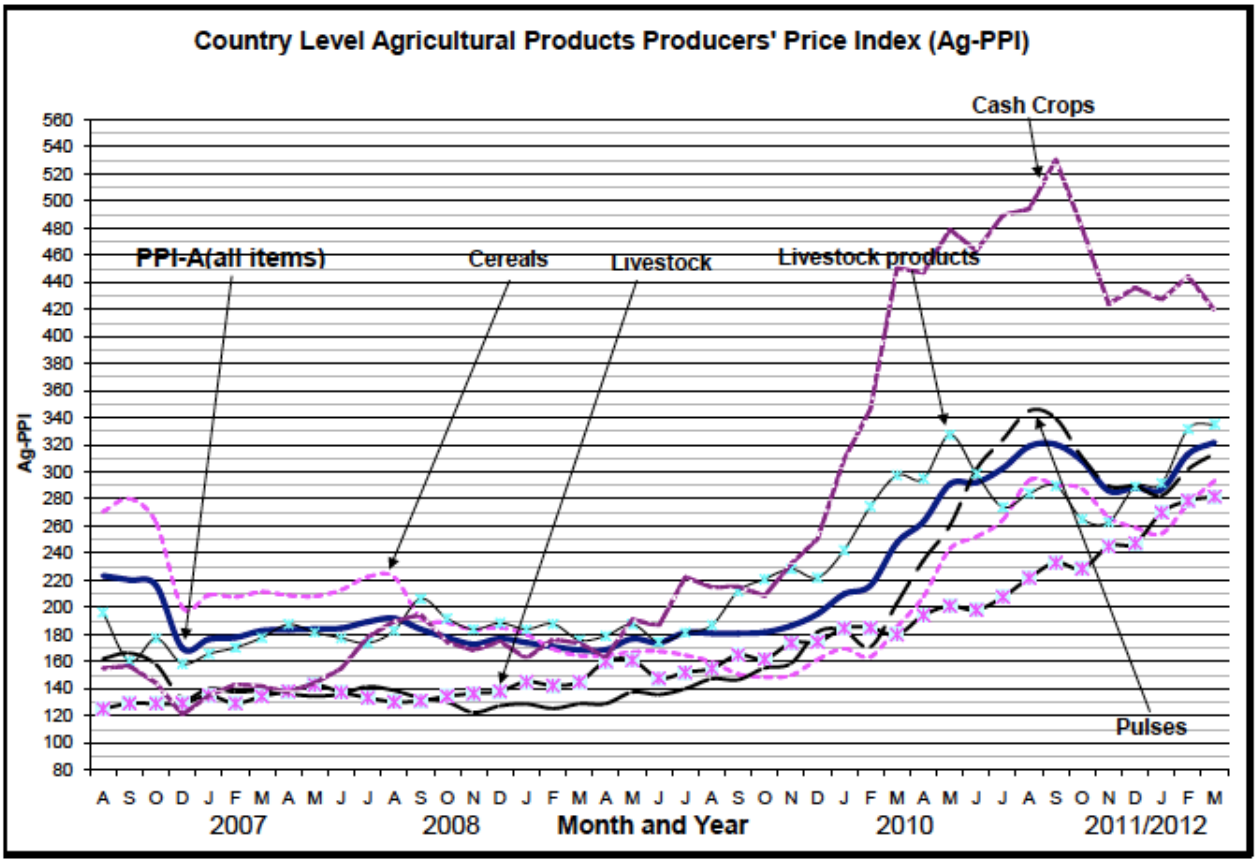



Figure 6.3 - Producer price index 2011/2012 (source CSA, 2012)

Price behavior had been stable since late 2008 until late 2009, and it grew steadily thereafter. In fact, prices for **cash crops** (dark pink line) experienced a spike in late 2009, to reach a fivefold increase to their initial value in 2011. Prices for **livestock** (black line pink crosses) kept a smooth but stable pattern of growth, from +120 per cent in 2006 to +260 per cent in 2012. Prices for **pulses** (black line) decreased in 2007, and then stood almost flat all along untill 2010, and finally tripled up in 2011. Overall, the **aggregate food items'** PPI value (blue line) had a slight decrease at the onset of 2008 and stood flat all along 2009. Then, it started climbing values in 2010 to reach its peak in

2011 and fluctuate at the onset of 2012. Finally, **cereals** (pink line) were the ones fluctuating the most in the short term. PPI for cereals started from a an height of plus 280 per cent in 2008 to halve their price in 2009. Then in 2011 reached a peak of triple to their initial value, to fluctuate down again to 240 per cent at the beginning of 2012.

### 6.1.3 *Food commercial imports*

Ethiopian food insecurity has been characterized by a disequilibrium between food demand and supply often leading to diffused and severe food shortages (Mohamed, 2017). Although, most of the demand for food is met through internal production, food imports to the country remain substantial and amounted to 1 million tonnes in 2014 (WFP, 2014). Even though Ethiopian government has launched both import substituion measures as well as an extensive agricultural transformation plans, Ethiopian food imports are expected to grow in the close future. This is due to low agricultural productivity, income rise and rapid population growth that will continue pushing for both higher quality and quantity of foods (FAS, 2017). The following table enlists top 30 agricultural imports value for 2015.

**Top 30 agricultural Ethiopian imports (2015)**

| | Commodity | mln $ 2015 | % increase 2010/15 | | Commodity | mln $ 2015 | % increase 2010/15 |
|---|---|---|---|---|---|---|---|
| 1 | Palm Oil | 423,6 | 94% | 16 | Dairy Products | 10,3 | -40% |
| 2 | Wheat | 363,1 | 21% | 17 | Planting Seeds | 9,5 | 60% |
| 3 | Sugars & Sweeteners | 179,0 | 65% | 18 | Processed Fruit | 8,8 | 144% |
| 4 | Rice | 157,6 | 512% | 19 | Tobacco | 6,4 | -46% |
| 5 | Prepared Foods | 125,8 | 270% | 20 | Rubber & Gums | 6,2 | 94% |
| 6 | Intermediate Products | 110,3 | 94% | 21 | Nursery Products & Cut Flowers | 5,3 | 11% |
| 7 | Forest Products | 84,8 | 131% | 22 | Fresh Fruit | 4,9 | 141% |
| 8 | Coarse Grains (ex. corn) | 72,7 | 82% | 23 | Condiments & Sauces | 4,5 | 123% |
| 9 | Vegetable Oils | 54,4 | 52% | 24 | Biodiesel | 4,1 | 69% |
| 10 | Pulses | 44,4 | 38% | 25 | Corn | 3,3 | 215% |
| 11 | Essential Oils | 32,6 | 3% | 26 | Spices | 3,2 | 170% |
| 12 | Distilled Spirits | 21,7 | 154% | 27 | Fresh Vegetables | 2,7 | 13% |
| 13 | Snack Foods NESOI | 15,7 | 124% | 28 | Fish Products | 2,5 | 104% |
| 14 | Juices (F&V) | 12,8 | 162% | 29 | Cocoa products | 2,5 | 34% |
| 15 | Soybean Oil | 10,6 | 353% | 30 | Wine & Beer | 2,4 | 47% |

*source: https://www.fas.usda.gov/data/ethiopia-ethiopia-s-ag-imports-continue-growing-0*

Table 6.2 - Commercial food imports in Ethiopia

Inadequate agricultural production, climatic patterns and imperfect markets have made Ethiopia dependent on a set of imported foods (*ibid*). These include both agricultural raw materials - *e.g.* cereals, oils, other grains, rice, and in smaller quantities fresh horticultural products; and semi/processed foods. During fieldwork, it was observed that most of processed foods were also imported.

Food imports in Ethiopia are driven both by consumers' demand and industrial demand. On the hand, the growing Ethiopian agribusiness demands inputs to support production, and local production can hardly meet internal demand. For instance, it should be noted that wheat ranks second in the list, although Ethiopia is the largest wheat producer in SSA (Deloitte, 2017). However, drought, food insecurity and market imperfections have weakened domestic wheat supply, making it unable to meet industrial demand driven by local production of pasta (WFP, 2014). On the other hand imports are also driven by the demand of consumers, as richer Ethiopians demand processed and semi-processed foods that are not historically produced in the country (FAS, 2017).


Figure 6.4 - On the shelves of a modern supermarket in Addis Ababa: imported parmigiano cheese, and imported pasta. - Field work observation

### 6.1.4 *Post Harvest Losses (PHL)*

PHL are high in Ethiopia. Fors instance, Rahiel, et al., (2018) reported cereals losses to be around 20-30 per cent; while PHL for fruit and vegetables were reported around 30-40 per cent of total production. While according to Mezgebe, et al. (2016), a consistent share of the interviewed households, (4 - 26.5 per cent), experienced PHL with shares of PHL total production around 10 per cent for vegetables, 30 per cent of fruit crops, and up to 60 percent for root and cash crops. Yet, data from the African Post Harvest Losses Information System (APHLIS) pointed to a lower loss factor for cereals (*see figure 6.5 below*).

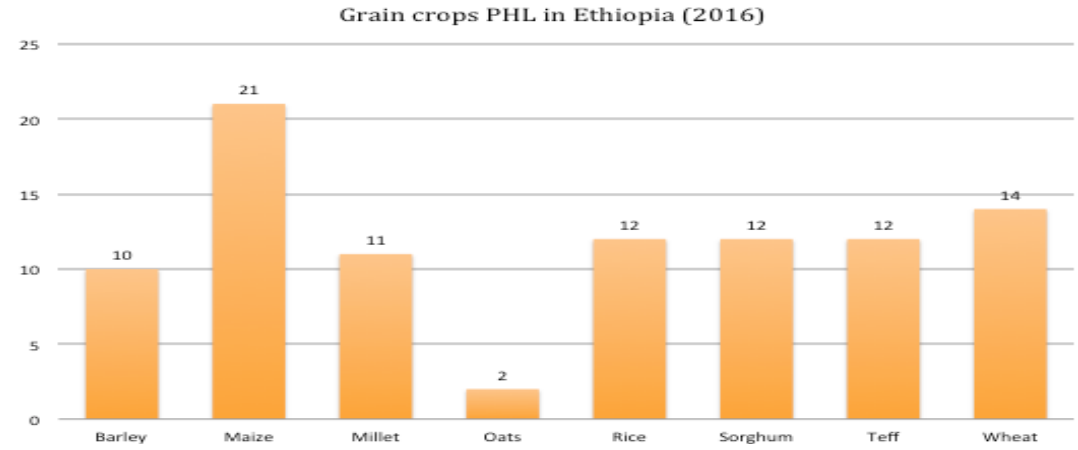



Figure 6.5 - PHL for cereals in Ethiopia (2016) source: *APHLIS 2018*

It is generally assumed that post harvest-losses would reduce the amount of foods available, and as such bearing a negative correlation with FNS. Whereas such conclusion holds from a logical point of view, Tielens and Candel (2014) claimed this is not necessarily the case, rather, they found a spurious correlation between such concepts in developed countries, where most of food is wasted by retailers or consumers. On the other hand, PHL are highly relevant to FNS in developing regions

were these occur at the early stages of the value chain; most often causing a detrimental reduction in the livelihoods of producing farmers. For instance, in table 6.3 PHL for major cereals in Ethiopia are described (source: APHLIS, 2018 - year of analysis 2016). As one can see the highest shares of PHL have occures before the marketing stage, causing a direct negative reduction in food available to farmers, causing direct reduction in incomes and nutrition; as it was suggested by Tielens and Candel (2014) in theory.

| Crop type | Harvesting/field drying | Platform drying | Threshing/ Shelling | Winnowing | Transport to farm | Farm storage | Transport to market | Market storage |
|---|---|---|---|---|---|---|---|---|
| Barley | 3.5% | 0.0 | 3.5% | 0.0 | 2.5% | 0.5% | 0.1% | 0.3% |
| Maize | 6.4% | 4.0% | 1.3% | 0.0 | 2.4% | 8.0% | 0.2% | 0.3% |
| Millet | 3.5% | 0.0 | 2.0% | 2.1% | 2.5% | 0.9% | 0.1% | 0.3% |
| Oats | 2.0% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rice | 4.4% | 0.0 | 3.1% | 2.5% | 1.3% | 0.8% | 0.3% | 0.8% |
| Sorghum | 4.6% | 0.0 | 3.6% | 0.0 | 2.2% | 2.4% | 0.1 | 0.3% |
| Teff | 3.5% | 0.0 | 3.5% | 2.5% | 2.5% | 0.2% | 0.3% | 0.7% |
| Wheat | 4.4% | 0.0 | 3.5% | 0.0 | 2.5% | 3.8% | 0.2% | 0.5% |

*Table - 6.3 - Relative PHL at various stage of the supply chain for major crops, year of analysis 2016. Source:* **APHLIS,** *2018.*

### 6.1.5 *Availability: Stress factors*

| Indicator | High priority stress factors |
|---|---|
| **National production** | • Cereal production barely meets the quanitity needed by national population<br>• Smallholders produce 95% of agricultural GDP and cultivate 12 million ha of arable land<br>• Irrigated land amounts to 1% of arable land, majority of food is produced under rainfed agriculture<br>• Fertiliser and pesticides are poorly diffused<br>• Crop yields are extremely low in Ethiopia |
| **PPI** | • Cereals PPI had been the ones growing less and fluctuating the most |
| **Imports** | • Ethiopia is dependent on imported processed and semi processed foods<br>• Internal food production is not sufficient to support the growing food industry |
| **PHL** | • Post harvest losses occur with larger magnitude for fruit and vegetables<br>• Post harvest losses occur with the highest frequency at farm level and at low frequency at the market level, causing more damage to private farmers' FNS |

Table 6.4 - Summary results - High priority stress factors to food availability

## 6.2 *Food Access*

### 6.2.1 *Agricultural income.*

Agriculture represents the main source of income in Ethiopia, as 11.7 million smallholder farms provide employment to 85 *percent* of Ethiopian labour force (Deloitte, 2017). It was not possible to acces exact income figures for farmers; this was due to the fact both temporal and geographical issues: first, there was no base year comparison, over and above regional price differences were substantial. But, it was possible to design an overiew of some trends in farmers income by using data from CSA (2012), Holtland (2017), Rahiel, et al. (2018).

First, cereals are the most produced crops, the most marketed, yet the less pricy. For instance, Rahiel, et al. (2018) indicates 37 per cent of farmers gain income from selling cereal crops, 28 per cent from horticultural crops, 16 per cent from both cereals and horticultural crops, and lastly 16 per cent sell horticultural products, grain crops as well as pulses (Rahiel, et al. 2018). The type of crop cultivated has a meaningful impact on the income of rural workers, Joosten, *et al.*, (2015) claims that farmers producing cash and horticultural crops can charge higher price and therefore raise their income per hectare. Finally, the overall trend is positive for Ethiopian farmers' gross income due to sensitive price increase, as exemplified by previous section (*see above* figure 6.3) **PPI** had rose substantially from 2006 to 2012. However, cereal producers benefit the less from price increases as cereal prices have remained low due to government policy to safeguard poor consumers.

Also, agricultural income depends on products' market destination, *i.e.* export or national-oriented markets. Holtland (2017) reports that farmers working for export markets under contract farming rise their incomes substantially. Business linkages can lead farmers toward both higher prices, as well as to productivity rising inputs. On the contrary, export bans on cereals indicates that cereals are sold to national markets where prices are usually kept low.

### 6.2.2 *Waged labour and extra income sources*


| | Minimum wage | Real wage of low-skilled worker | Real wage of medium-skilled worker | Real wage of high-skilled worker |
|---|---|---|---|---|
| Min | 420 | 2540 | 3010 | 4370 |
| Max | 420 | 4110 | 4880 | 6500 |

Figure 6.6 - Ethiopian real wage levels 2018 (ETB/month) according to wageindicator.org, a research group based in Amsterdam partnering with institutions such as University of Amsterdam/AIAS & The Workers' Group of the International Labour Organization, to collect accurate cross-national information on incomes, expenditure and consumption.

Next, the second most important source of income is waged labour. Figure 6.6, *above*, depicts 2018 wage levels in Ethiopia according to wageindicator.org. Wage levels range from a minimum of 420 ETB/month to a maximum of 6500 ETB/month (around $235). Yet, such figures looks high. For instance, the ILO reported average wages to be 1349 ETB/month in 2013 (ILO 2018). Furthermore,

real wage for low skilled workers is reported around ETB 900-1000. This is suggested in Douma, 2017, a rapport on horticultural farms. Also, during an informal conversation, mr Poli (Ph.D) had suggested me that wages for the extremely low skilled workers amount to low 1000 ETB/month. Wages for low skilled workers are below the internation 1,90 poverty line per day, and the Ethiopian food poverty line of 1985 ETB/mothly, estimated by the WFP (2014). Hence, wages for low skilled labourers can hardly increse their food security status, as claimed also in Melese (2017).

| | Households Reporting Source % | Average (Median) Income Received in the Last 12 Months *Birr* |
|---|---|---|
| **Transfers/Gifts (from individuals)** | | |
| Cash | 12.3 | 2,000 |
| Food | 7.3 | 500 |
| Nonfood in-kind | 4.6 | 730 |
| **Rental income from . . .** | | |
| Land | 7.0 | 1,500 |
| Shop, store, house, car, truck, other vehicle | 4.7 | 3,600 |
| Transport animals | 0.6 | (1,200) |
| Agricultural tools | 0.3 | (460) |
| **Pension and investment income** | | |
| Interest or other investment income | 0.7 | (500) |
| Pension income | 2.4 | 3,600 |
| **Revenue from sales of assets** | | |
| Income from real estate sales | 0.7 | (4,900) |
| Income from household nonagricultural asset sales | 0.6 | (3,500) |
| Income from household agricultural/fishing asset sales | 0.1 | (1,700) |
| **Other income** | | |
| Inheritance, lottery, gambling winnings | 0.4 | (1,500) |

**figure 6.7 -** Households sources of additional income ranked by source, not including agricultural work, waged labour and non farm enterprises.

Lastly, the WB (2017) investigated extra income sources, which accounted for non-agricultural and non-waged income. Gifts either in the form of cash, food or other commodities have remained the most common source of extra income in Ethiopia; during the twelve months of observation period around 12 per cent of the surveyed population received direct cash tranfers with an average value of ETB 2000, 7 per cent received food gifts, and 5 per cent non-food items. Renting assests has remained less common, but it generated higher incomes than transfers. 7 per cent of surveyed households reported renting land, while and 5 per cent other assets (shops, store, houses car, trucks. Lastly, 2,6 per cent of households can rely on pensions, with an average value of ETB 3200, a year. The other entries in ther list have such low relative frequencies to be considered unrepresentative of actual dynamics.

### 6.2.3 *Consumer price index (CPI)*

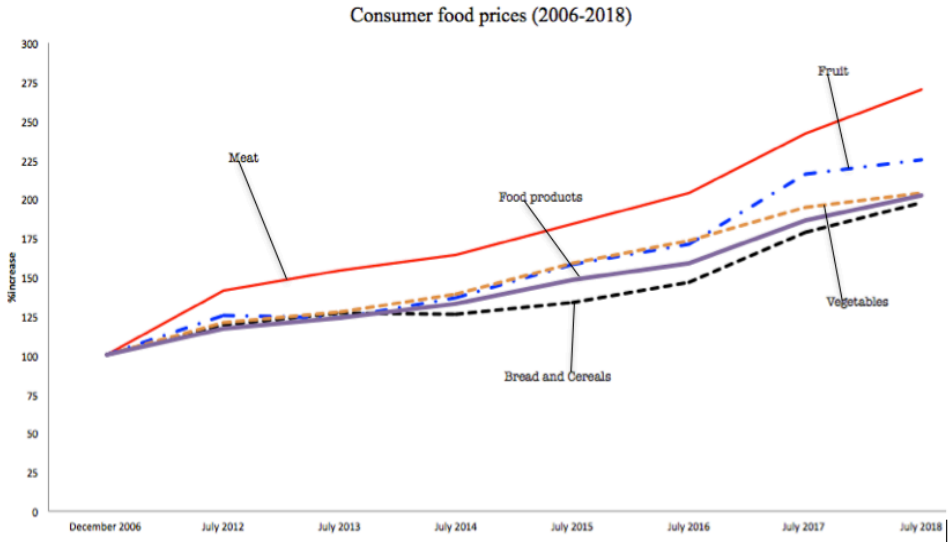



**Figure 6.8 -** Rising food prices for consumers in Ethiopia. *Self developed graph* based on the template used by the CSA. *Data source: CSA, 2018*

Although on average, rural Ethiopians consume mostly self-produced food, consumer food price inflation has a special relevance to the livelihoods of both urban dwellers, and less endowed rural dwellers (WFP, 2014). In the first case, this was is so because while food prices has risen, wages has failed to adjust for inflation (Melese, 2017).

Quality data on individual consumer food prices were not accessible due to manifold reasons *e.g.* price fluctuations, lacking datasets, high geographical differences in prices, high informality of Ethiopian economy. Yet, it was possible to report on food price increases by using consumer price index (CPI), prodeced by the CSA to measure inflation and economic vulnerability. It reports on a fixed basket of goods, including food items, from 119 market places across the nine regional states. Food items under observation for this study include data on **cereals** (black line), **fruits** (blue line), **meat** (red line), **vegetables** (orange line), as well as an **harmonized food index** (violet line).

For instance, overall weighted consumer food prices in Ethiopia have increased by 75 percent during the last 12 years, which means a three-quarter increase since the base year. Meat prices grew the most (+129 per cent), while cereals grew the less (+79 per cent). Government controlled cereal price levels as these are base to the diets of the poor (WFP, 2014). Then, fruit and vegetables almost doubled their market price being +98 per cent for the first, and +93 per cent for the vegetables. Food price inflation in Ethiopia had become a priority to safeguard urban FNS, where an estimated 20 per cent of population lives (Knoema, 2018; WFP, 2014;).

### 6.2.4 *Food accessibility: Stress factors*

| Indicator | High priority stress factors |
|---|---|
| **Agricultural and non-agricultural incomes** | • Wages are extremely low in Ethiopia, seldom below the food poverty line<br>• Cereals are the most commnly marketed crops, yet the ones marketed at the lower prices<br>• Horticultural products can increase income, but entail high risks<br>• Wages of low-skilled labourers are below food poverty line, and therefore can hardly contribute to FNS |
| **Consumer food prices** | • Food price inflation is high in Ethiopia<br>• Food price increases impact with greater severity the livelihoods of urban workers depndning on wages |

Table 6.5 - Summary results - High priority stress factors to food accessibility

## 6.3 *Use and Utilisation*

### 6.3.1 *Diets*

According to the National Food Compustion Survey (EPHI, 2013), the most widely consumed foods (g) in Ethiopia are cereals and grains (Wheat, maize, teff and sorghum) for adults, and diary products for children. Nationally, the consumption of meat and fish products as well as that of vitamin A rich fruits and vegetable was low. The latter group accounted for less than 10 percent of total food consumption (EPHI, 2013). Also, consumption patterns for roots and tubers (enset, potato, sweet potato, taro, cassava, yam and anchote) were recorded to be low - *see above figure 6.9*

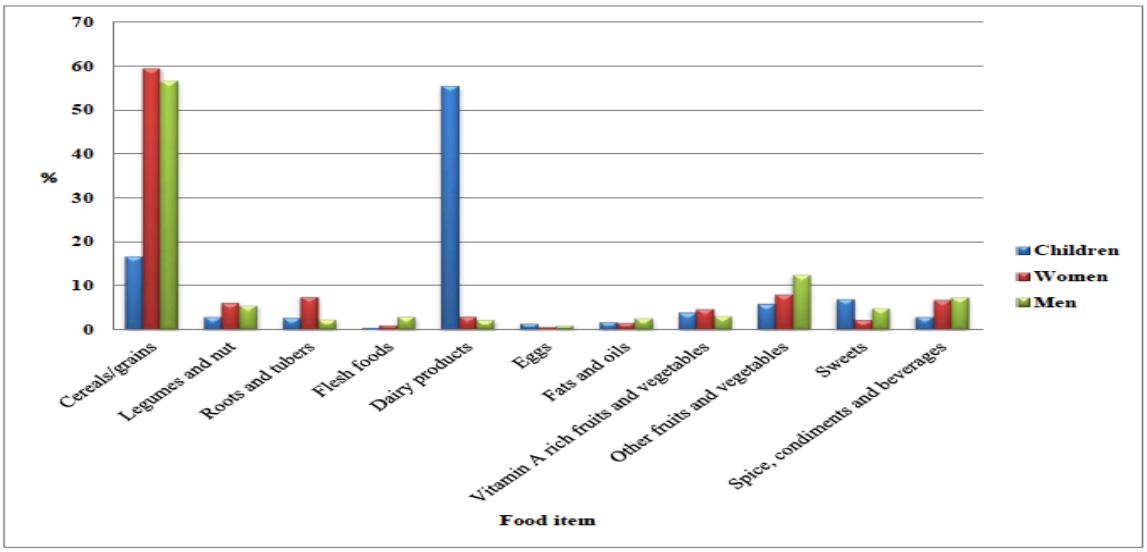



**Figure 6.9 -** Ethiopian Diet Composition Relative Shares of Food Items to Total Consumption 2013 (g) - Source: EPHI, 2013

The WFP (2014) also reported similar findings. Over a seven days monitoring period, rural households consumed on average cereals and grain for 6,5 days, pulses for 4 days, vegetables for 5 days, fruit for 0,5 days, meat once every seven days, oil for for days, sugar for 1,4 days, and dairy products for 1,6 days. Data are similar for urban households, except for dairy products (1,4), meat (1,8) and fruit (0,9) out of seven days.

To conclude, Ethiopian diets were inadequate both regarding food quantity and the quality reportedly (WFP, 2014). As one household out of two got more than 75 per cent of energy intake from a single food source, *i.e.* cereals, and 7 households out of 10 scored poorly on dietary diversity (*ibid.*). Indeed Ethiopian diets were also poorly diverse. Ethiopian diet was based on cereals, other grains, and sometimes vegetables. Animal protein consumption had low frequency similar to the ones for fruit and dairy. Also, low diversity patterns became more evident when analysing rural to urban as well as income differences (*ibid*). Broadly speaking, poorer rural households are the most affected by low dietary diversity as these are usually dependent on self-production, and tend to forfeit nutrition for income by selling more valuable crops and consuming less valuable ones (Hirvonen *et al.,* 2016; WFP, 2014).

### 6.3.2 *Nutrient consumption*

Nutrients allow human body to ignite the necessary biological processes to maintain health. During the early stages of human life, nutrients support the development of the human body (EMRO, 2018). Nutrients are usually divided in macro- and micronutrients.

Macronutrients are nutrients required in great quantities to support daily energy consumption for an active life (EMRO, 2018). Carbohydrates, fats and proteins, are the three broad categories of macronutrients that support energy requirements (WHO, 2018). In the case Ethiopian diets, carbohydrates accounts for 73,5 per cent for women, and 68,1 per cent for men, of daily energy intake (EPHI, 2013). While protein intake accounts for around 10 percent for adults, fats provided for 16 per cent, and 20 per cent of total energy intake for women and men respectively. Finally, children had the lowest carbohydrates intake (67,2 per cent), the highest proteins intake (22,9 per cent), and the lowest fats intakes (10,5 per cent).

| | Mean ± SD Kcal intake | Source | (%) |
|---|---|---|---|
| Children (1-3 y) | 539 ± 347 | Carbohydrate | 67,2 |
| | | Protein | 22,9 |
| | | Fat | 10,5 |
| Women (15-45 y) | 1726 ± 768 | Carbohydrate | 73,5 |
| | | Protein | 9,7 |
| | | Fat | 16,5 |
| Men (19-45 y) | 1726 ± 768 | Carbohydrate | 68,1 |
| | | Protein | 10,4 |
| | | Fat | 20,7 |

**Figure 6.10** - Mean energy intake (Kcal/d) as reported for children, women and men by single 24 dietary recall, with relative shares of source of energy - *self developed* - data source EPHI, 2013

Also, in Ethiopia consumption patterns often fall often under the 2,550 Kcal per day requirements for healthy nutrition. The mean daily energy intake for surveyed population is 1726 Kcal for adults, and 539 Kcal for children, with a standard deviation of 768 Kcal for adults, and 347 Kcal for children (EPHI, 2013). Also, rural households where found to acquire more energy than urban counterparts (Hirvonen et *al.*, 2016). Mean daily consumption for rural households was recorded to be 2,444 Kcal per capita, whereas urban households consumed 2,287 Kcal per capita (*ibid.*). This difference possibly reflects more energy intensive lifestyle experienced by rural households and more expensive sources of calories in urban areas (*ibid.*).

Next, micronutrients are nutrients consumed in tiny amounts, yet necessary for human life brcause of their enabling function for enzymes, hormones and other micro-substances essential to biological development (EMRO, 2018). Most relevant micronutrients to human health are vitamin A, iodine, and iron (WHO, 2018).

First, *vitamin A deficiency* is a urgent global nutritional problem, particularly for pregnant women and chidren in developing countries (EPHI, 2016; WHO, 2018). Vitamin A is a fat soluble vitamin, and therefore it does not require a daily consumption. Its deficiency can causes severe diseases during pregnancy: children may experience blindness, or immunodeficincy patologies leading to a

premature death, while it also increases the risk of maternal death for pregnant women (EPHI, 2016). In Ethiopia, vitamin A deficiency is mild public health problem for women of reproductive age and moderate in all other group: vitamin A deficeincy occurred for 14 per cent of pre-school age children, for 10.9 per cent of school age children and for 3.4 per cent of women in reproductive age (*ibid.*).

*Iodine deficiency* is also considered a global nutritional problem. This condition is the prevalent cause of severe brain damage worldwide (WHO, 2018). Iodine deficency have serious implication for children development, mental health, and even survival (*ibid*). Iodine is necessary to the production of the thyroid hormone, which affects all stages of human life i.e. reproduction, growth, physical and mental development (EPHI, 2016). In Ethiopia, iodine deficiency disorder is a severe public health problem, iodine deficiency occurrs for 47,5 per cent of children in school age, and 52 per cent of women in reproductive age (*ibid*).

Finally, *iron deficiency* is the most common risk factor for anaemia globally (WHO, 2018). Iron deficieny reduces the ability of red blood cells to carry oxygen, leding to anemia. In fact iron is the component of hemoglobine used in red blood cells to transport oxygen, and anaemia occurs when oxygen in the red blood cells is not sufficient to meet physiologic needs (*ibid*). An estimated 600 million people suffers from iron deficiency induced anemia globally (EPHI, 2016). Iron deficency can also slowdown children development causing mental as well as motoric disorders. Iron deficiency anemia is moderate public health problem in Ethiopia in preschool children and mild in women of reproductive age. Iron deficiency was prevalent among children in preschool age, with slightly less than one child out of three registered as iron deficient (29,6 per cent). Also, one child in school age out of four (19,5 per cent) were found to be iron deficient. Finally, the less affected group were non-pregnant women in their reproductive age, where 16,4 per cent were found to be iron deficent (*ibid*).

To sum up, the WFP (2014) claims that about 40 percent of total households in Ethiopia consume less than the adequate intake of energy (WFP, 2014). In relative terms urban populations had been found to have a lower per capta intake of energy than rural ones (Hirvonen, et al., 2016). Also, data for macronutrients in Ethiopia reflect the fact that Ethiopia is LMI country, where it is common that the daily caloric intake is insufficient and cereals and grains contribute to the major shares of energy intakes (EMRO, 2018).

### 6.3.3 *Food Use and Utilization: Stress factors*

| Indicator | High priority stress factors |
|---|---|
| **Diets** | • Cereals and grains are staple food in Ethiopia, and consumed almost daily<br>• Dietary diversity is low in Ethiopia<br>• Poorer rural households are the most affected by low dietary diversity |
| **Nutrient consmption** | • Energy intakes are not sufficient, and can sometimes go under 1000 Kcal per day<br>• Urban populations had been found to have a lower per capita intake of energy than rural ones<br>• Cereals and grains contribute to 60–80 percent of total calorie intake<br>• Iodine deficiency disorder is severe a public health problem |

Table 6.8 - Summary results - High priority stress factors to food use and utilization

## 6.4 *Stability*

### 6.4.1 *Seasonal varitions*

Reasons for seasonal food insecurity are reported to be rainfall patterns, and consquent food price variations, and religious beliefs (Hirvonen, et al., 2016). First, for urban residents, low caloric intakes correlated with Orthdox fasting periods (December and March) and food prices variations during the belg harvest season (*ibid*). In fact, the hunger period starts in Ethiopia in coincidence to the *belg harvest*. Belg harvest is considered the lean season: crop production is extremely low, prices are high and stored foods are on the verge of finishing (WFP, 2014). Then, the hunger period lasts all along the *meher* rainy season from June to October - *see below figure 6.10*.

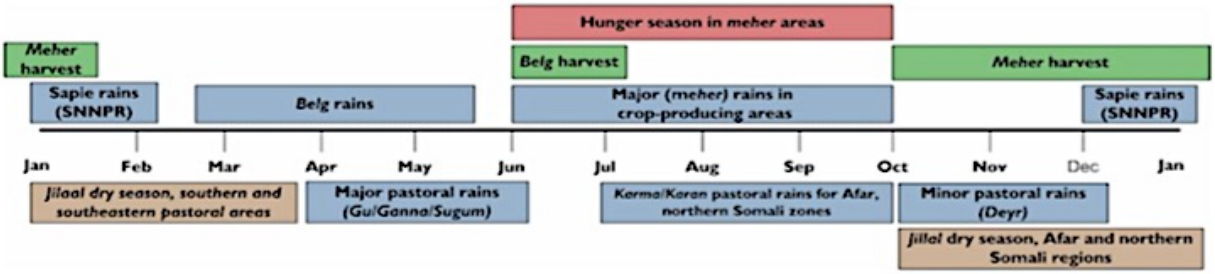



Figure 6.10- Seasonal calendar for 2010/2011 - adopted from WFP (2014).

In figure 6.11 - see *below*, seasonal dietary variations are shown for both rural and urban populations. In the left-hand panel average daily per capita caloric intake are shown for rural dwellers. In 2011, average caloric intake stood steady around 2500 Kcal from September to May, and it dropped from May until July (-10 per cent). For urban residents, average caloric consumption was generally lower, especially from October to March, and more fluctuating. On the right-hand panel, average diet diversity score by rural/urban are shown; monthly variations were also sensitive in dietary diversity score for rural areas. For instance, the line drops to the lowest value in June, when food availability is reduced and rural diets become heavily dependent on dry food e.g. cereals, nuts, pulses and legumes (WFP, 2014). Overall variations in rural diets increased at the begin of *meher* harvest season from october to february, and decreased with begin of *meher* rainy season (*see figure 6.11 below*).

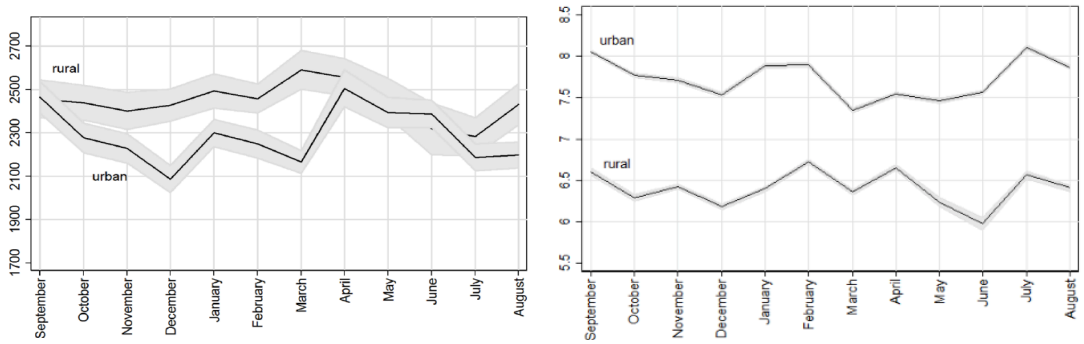



***Figure 6.11*** **- Left-hand panel:** *S*easonal patterns in mean daily per capita calorie intake, by rural/urban 2010/2011- *on the vertical axis daily per capita calorie consumption of households (Kcal) for each calendar month.* - **Right-hand panel** seasonal patterns in mean households diet diversity score by rural/urban 2010/2011 - Vertical axis gives the number of food items consumed byy houshold. The solid line gives the mean for each calendar month, and the grey area represents 95% confidence level - adopted from **Hirvonen, et al., (2016).**

Price fluctuations may have severe impacts on the status of urban populations dependent on fixed income (Hirvonen et *al.*, 2016). Price variations are also sensitive to seasonal variations. As one can see rural prices (left panel) start decreasing during October, and stay low from November to March during *meher harvest*. Then prices go up again as food starts decreasing, then fluctuate from April to August, and finally prices hit a peak in September during Ethiopian New Year's celebrations (*ibid*). Urban areas are logically dependent on food produced in rural areas, thus, trends in urban food prices somehow follow those of rural areas. However, urban population remains affected by significantly higher prices since May until August.

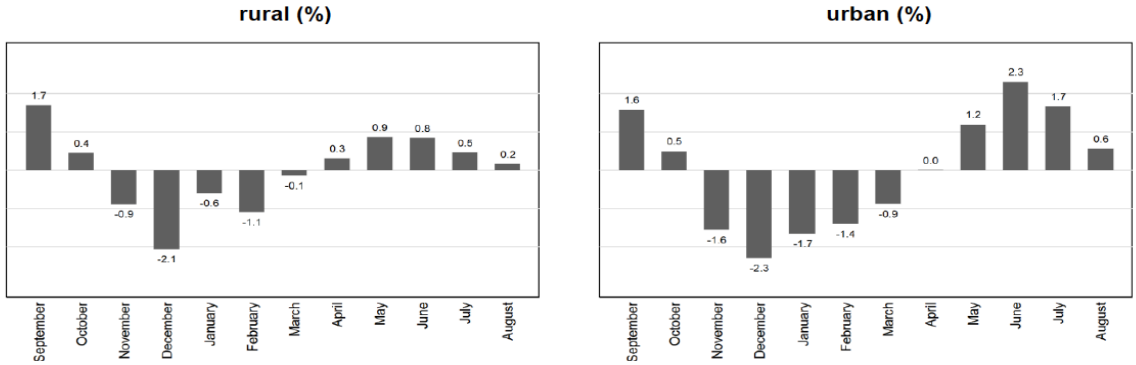


figure 6.12 Monthly food price changes in Ethiopia, percentage deviation from annual average, by rural\urban households (2010/2011) - retrieved from Hirvonen *et al.,* (2016)

### 6.4.2 *Shocks*

Data were collected from surveys ran by the CSA, and published in WFP (2014) and WB (2017), and they describe the share of households experiencing shocks in the 12 months before the survey period. The major difference between the WFP and WB methodologies lies on including food shortages as a shock for itself, or as a consequences to the shock. In fact, for this study the latter approach is chosen, and therefore WB methodology is preferred.

Results from the WB (2017) indicate that most prevalent shocks at the national level, are sudden decreses in human, natural and financial capitals. The most frequent shock to FNS registered is illness of an household member, experienced by 23 per cent of surveyed households. The second most prevalent shock is drought, experienced by 21.3 per cent of the surveyed households. Finally, the last two most diffused shocks are food price increases and, lastly, price rises of agricultural inputs experienced respectively by 20.8 and 14.1 percent of surveyed population. Importantly, households in shock prone areas may have reported one or more shocks at the same time. Finally, less diffused, but common shocks include crop damage (5,8%), loss of livestock (5,2%), price fall of food items (4,6%) death of household member (2,6%), local unrest (2,2%), heavy rains preventing work (2,2%), death of main bread earner (2,1%), loss of non-farm job from household members (1,8%), theft robbery violence (1,3%), and finally flood (1%).

Next, the WFP mentioned that shocks were most prevalent among rural dwellers, than urban ones. In fact, 37 perc ent of surveyed rural households reported to have experienced one or more shocks in the last 12 months, while urban households were around 28 percent (in WFP, 2014). Anyway, the methodology to collect data was possibly biased as most shock categories referred typically to rural shocks (WFP, 2014.). Also, housheols with low food consumption had experience twice as many shocks as households with safe food consumption patterns (*ibid*).

### 6.4.3 *Stability: Stress factors*

| Indicator | High priority stress factor |
|---|---|
| **Seasonality** | • Food insecurity in Ethiopia can be defined cyclical<br>• The great deal of seasonal variability can be attributed to the *belg harvest,* yielding less than 10% of total crop production<br>• *Belg harvest* introduce the hunger season, lasting about five months |
| **Shocks** | • The most prevalent shock registered was illness of an household member<br>• The second most prevalent shock was drought<br>• The third most prevalent shock was food price increases<br>• Households in shock prone areas may have reported one or more shocks at the same time, resulting in a severe reduction of coping strategies<br>• Househols with low food consumption experience twice as many shocks as households with safe food consumption patterns<br>• Shocks are most prevalent among rural dwellers, than urban ones |

Table 6.8 - Summary results - High priority stress factors to stability

# 7 Results III: Companies' contributions to FNS

This section aggregates together results section I and II. In this section, data on the six cases are matched to indicators to the the four dimensions of FNS. Hence, this section represents the connection between empircal and desk studies. Results are presented on case-basis to highlight how each firm individually contributed to which of the four dimensions of FNS. Tables and figures are supplemented by a piece of text briefly summarising company's contributions. The results in this section will be used as evidence to address the main research question[4] in the conclusion.

## 7.1 *Bale Green Spices and Grains Development PLC*

### 7.1.1 *Contibutions to FNS*

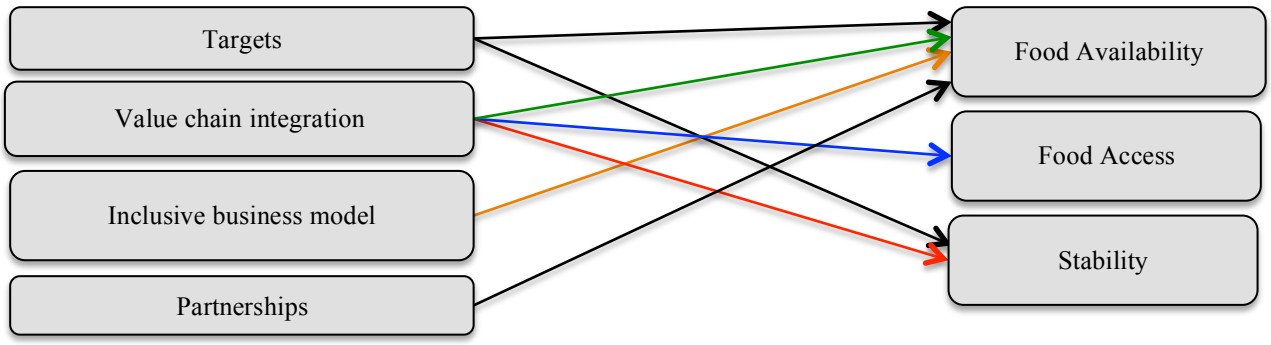
Company activity contributes to three dimensions of FNS, namely **food availability, food accessibility and stability (***see figure 7.1 below***).** Value chain integration **targets** smallholder farmers, whose food security status is directly dependent from farm's production, and resilence to sudden shocks such as soil erosiom (WFP, 2014; Mohamed, 2017; Baye, 2017). By targeting smallholders the firm will increase national food production and farmers' resilience against drought. **Value chain integration** will occurr as suppliers providing to farmers market access, post-harvest technologies, trainings, and a stable income source. These factors impact food production, PHL, agricultural incomes, and the shocks experienced by farmers (See table below). Input supply will meet farmers' demand for fertilizers, leading them to productivity increases; access to post-harvest technology will reduce PHL, and therefore increase real productivity; trainings will help farmers mitigate and monitor soil erosion, reducing their vulnerability to climatic shocks. Smallholders are integrated at the core of busines model as suppliers because the firm directly increases their productive capacity. In fact, firm's vision to growth is leading smallholders increase production. Interestingly, the firm acquired post-harvesting technology by working in partnership with an American NGOs. So the **partnership** dimension is also considered to have a direct contribution to reduction of PHL.

| Dimension in the scan | Impacted FNS Indicator | Dimension of FNS |
|---|---|---|
| Target | **National Food production** | Food availability |
| | **Shocks** | Stability |
| Value chain integration | **PHL**<br>**Food production** | Food availability |
| | **Agricultural incomes** | Food access |
| | **Shocks** | Stability |
| Inclusive business model | **National Food production** | Food availability |
| Partnerships | **PHL** | Food availability |
| CSR | *No direct impact* | |
| Responsible supply chain management | *No direct impact* | |

**Table 7.1 - Results - The impact of *Balegreen spices and grain development PLC* activity on indicators of FNS**

[4] How do different Dutch inclusive agribusiness investments contribute to FNS for Ethiopian nationals?

Figure 7.1 - Dimensions in the scan contributing to which dimension FNS in Ethiopia




## 7.2 *Baro flowers PLC*

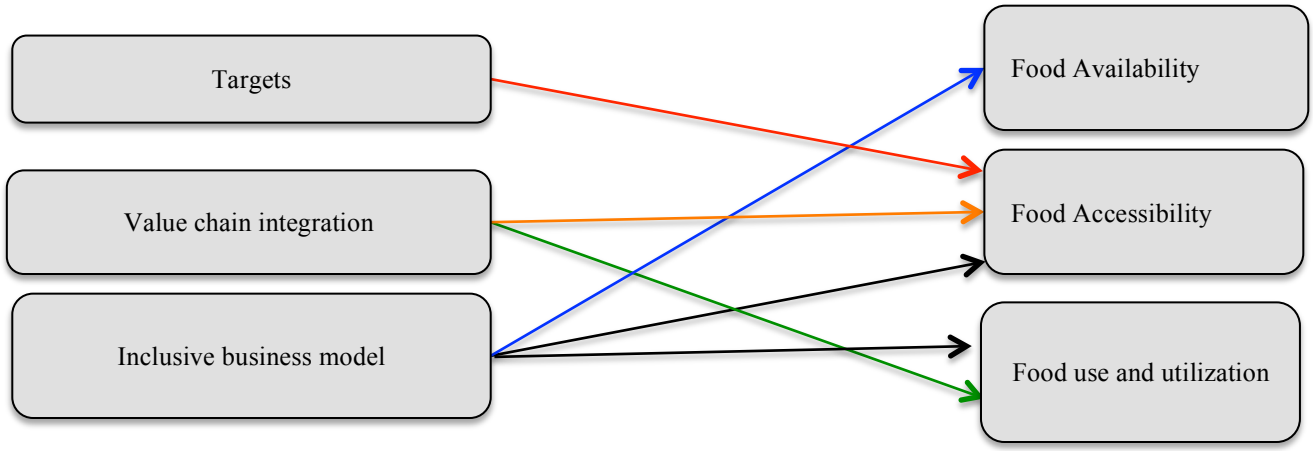
### 7.2.1 *Contibutions to FNS*

Firm's activity contributes to three dimensions of FNS, namely **food availability, food accessibility and use and utilization.** The company **targets** smallholder farmers, rural (female-headed) households, directly contributing to their incomes. Firstly, the firm procures from smallholders avocado rootstocks. Secondly, it sells improved avocado seedlings to both private peasants and commercial firms. Then, the firm will also integrate rural households as suppliers for avocados, and to do so the firm is currently distributing free seedlings to selected smallholders to raise awareness and get them to produce avocado. In the first two cases **value chain integration** generates income for smallholders, in the latter case **value chain integration** also benefits rural diets adding on-household source of dietary diversity. Noteworthy, the respondent claimed that avocado production would fit female farmers specifically, as avocado plant a can be planted on the household, and its cultivation requires little physical effort, very important factors for female-headed rural households in Ethiopia, as they usually dispose of little arable land (WB, 2015). Next, the **inclusive business model** is inclusive of the poor as the company procures from, sells to and employs vulnerable groups. The firm is profitable by selling avocado seedlings, and it will scale-up operations when rural households will be organized into a export-oriented supply chain, with evident benefits to incomes, and food production. Finally, the firm also employs rural people as laborers, yet employment is not considered to yield any benefits to their FNS, as literature suggests on farm wages to be too low to support labourers' basic needs (Douma, 2017; Melese, 2017).

| Dimension in the scan | Impacted FNS Indicator | Dimension of FNS |
|---|---|---|
| Target | **On-farm income** | Food Accessibility |
| Value chain integration | **On-farm income** | Food Accessibility |
| | **Diets** | Food use and utlization |
| Inclusive business model | **National food production** | Food availability |
| | **On-farm income** | Food Accessibility |
| Partnerships | *No direct impact* | |
| CSR | *No direct impact* | |
| Responsible supply chain management | *No direct impact* | |

Results 7.2 - The impact of Baro flowers PLC activity on indicators of FNS

Figure 7.2 - Dimensions in the scan contributing to selected dimension FNS in Ethiopia




## 7.3 *Moye Coffee Roaster PLC*

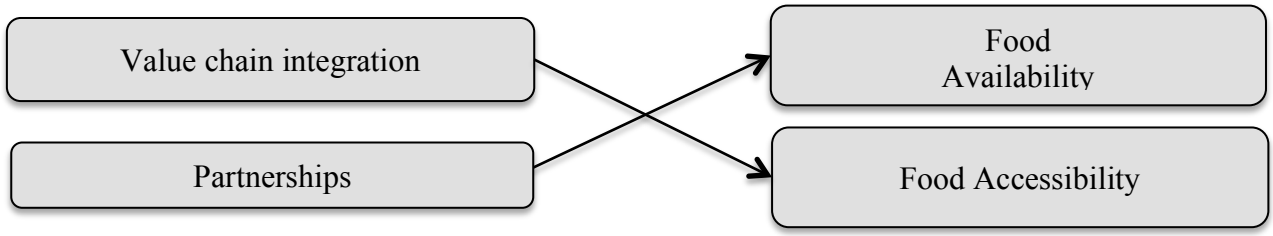
### 7.3.1 *Contibutions to FNS*

*Moye Coffee Roaster PLC* activity contributes to two dimensions of FNS, namely **food availability,** and **accessibility.** The company does not target any vulnerable group in its value chain**,** and poverty reduction is not integrated in the business model. The firm integrates coffee producers into the **value chain**, and procures most of its coffee in **partnership** with a fair-trade export oriented farm. Therefore, firms contribution amounts to increased incomes for coffee producers, with possible benefits on food access. Firm's partnership with Tega & Tula farms also result into increased prices for producers and additional income.

| Dimension in the scan | Impacted FNS Indicator | Dimension of FNS |
|---|---|---|
| Target | *No direct impact* | |
| Value chain integration | **On-farm income** | Food access |
| Inclusive business model | *No direct impact* | |
| Partnerships | **Producer prices** | Food availability |
| CSR | *No direct impact* | |
| Responsible supply chain management | *No direct impact* | |

Results 7.3 - The impact of *Moye Coffee Roaster PLC* activity on indicators of FNS

figure 7.3 - Dimensions in the scan contributing to each dimension in the definition of FNS



## 7.4 *Holland Dairy PLC*

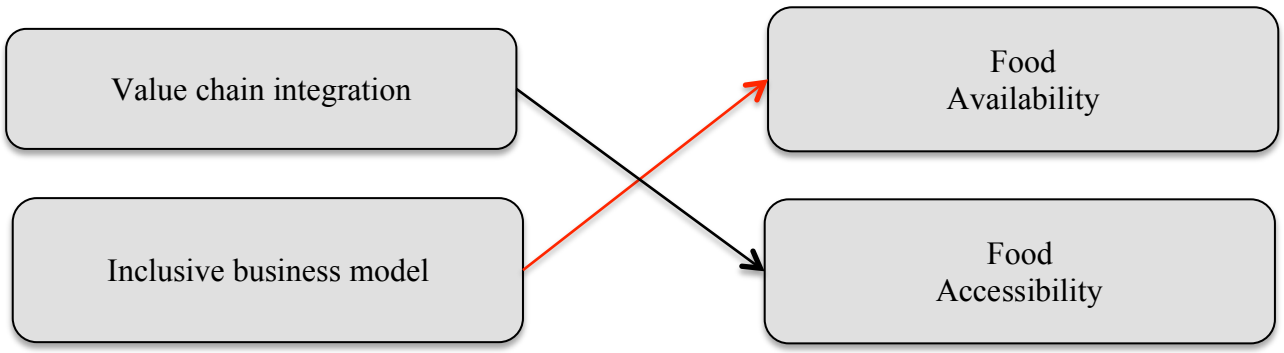
### 7.4.1 *Contibutions to FNS*

*Holland dairy PLC* activity contributes to **food availability,** and **accessibility.** *Holland Dairy* PLC is a milk processing company that procures milk from rural livestock farmers to produce yoghurts and pasteurized milk. First, the poor are not explicitly targeted by **value chain integration** which has impacts limited to increasing livestock producers' income. Although the company provides some benefits to its suppliers, as well as to local communities, theres is no evidence that poverty reduction is integrated in the **business mode**l. Anyway, since the company collects and processes milk the **business model** yields benefits to food production and imports reduction with possible benefits for food availability. Finally, the company could generate benefits for children's FNS, which largely consume dairy products in Ethiopia (EPHI, 2013). However, there is no evidence that poor people may actually afford to buy company products, which are not sold at affordable prices.

| Dimension in the scan | Impacted FNS Indicator | Dimension of FNS |
|---|---|---|
| Target | *No direct impact* | |
| Value chain integration | **On-farm income** | Food accessibility |
| Inclusive business model | **National food production**<br>**Imports** | Food availability |
| Partnerships | N/A | |
| CSR | N/A | |
| Responsible supply chain | N/A | |

Results 7.4 - The impact of *Holland Dairy PLC* activity on indicators of FNS

figure 7.4 - Dimensions in the scan contributing to selected dimension FNS in Ethiopia




## 7.5 *Ed Stelar Food PLC*

### 7.5.1 *Contibutions to FNS*

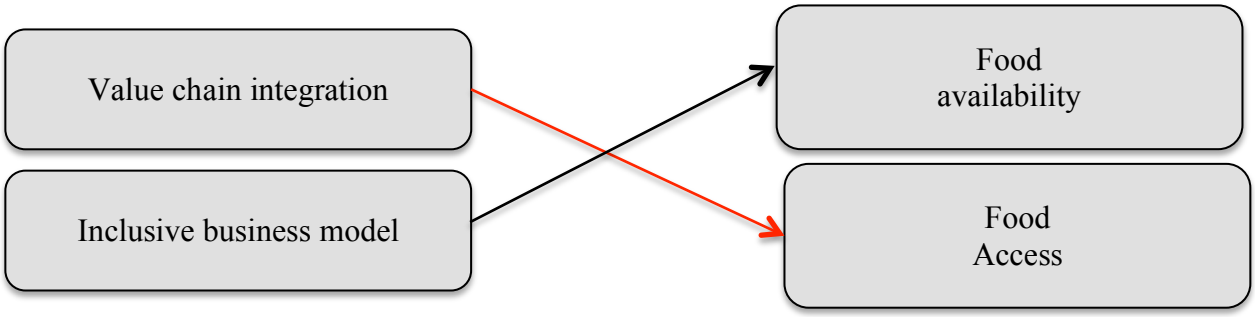
Company activity contributes to two dimensions of FNS, namely **food availability,** and **accessibility.** Specifically, poverty reduction is not integrated in the business model. However, value chain integration and business model dimensions have direct impact on incomes and national food production. Livestock producers are **integrated into the value chain** as suppliers, gaining a safe and reliable income source. However, it is possible that company suppliers are already better off than vulnerable population, due to firm's quality and sustainability requirements. Regarding **income**, the company offers waged work opportunities for low-skilled prfessionals, yet this type of

employment is not considered to yield any benefits to their FNS, as literature suggests wages to be too low to support labourers' basic needs (Douma, *et al.,* 2017; Melese, 2017). Noteworthy, the company is possibly the first to produce deep-frozen meat products, this will increase food procution by creating a market case for chicken and beef products.

| Dimension in the scan | Impacted FNS indicator | Dimension of FNS |
|---|---|---|
| Target | *No direct impact* | |
| Value chain integration | **On Farm income** | Food Accessibility |
| Inclusive business model | **Food production** | Food Availability |
| Partnerships | *No direct impact* | |
| CSR | *No direct impact* | |
| Responsible supply chain management | *No direct impact* | |

Results - 7.5 The impact of *Ed Stelar Food PLC* activity on indicators of FNS

Figura 7.5 - Dimensions in the scan contributing to selected dimension FNS in Ethiopia




## 7.6 *Oromia Seed Enterprise*

### 7.6.1 *Contibutions to FNS*

Company activity contributes to three dimensions of FNS, these are **food availability, accessibility, use and untilization.** Value chain integration **targets** smallholder farmers to increase their productive capacity. To do so, the company provides smallholders with access to both productivity raising inputs and post-harvesting technologies. **Value chain integration** is twofold: the company produces seeds with smallholders, and sells seeds for 21 crops and over 70 varieties at affordable price. **Value chain integration** contributes both to smallholders' productivity via access to inputs and on-farm incomes as the procures from farmers, and finally smallholders' can widen crop production by buying seeds for varieties produced by the firm. This will possibly increase dietary diversity as smallholders usually consume for self cosnumption and then sell surpluses on the market (WFP, 2014) Anyway, contributions may be limited as smallholders often forfeit dietary diversity to sell more pricy crops on the market (*ibid*).

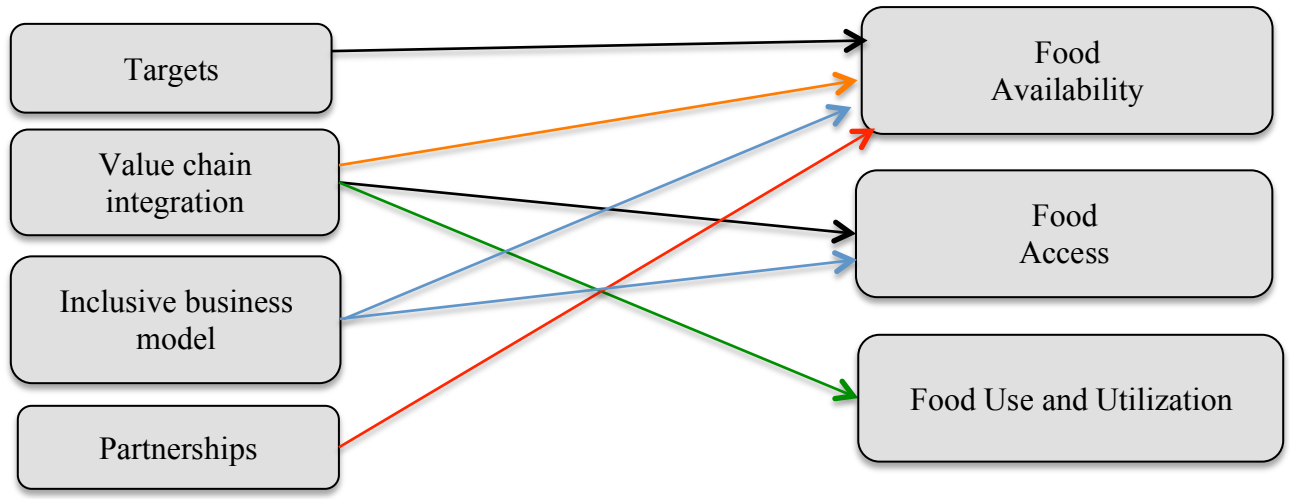
Next, the poor are integrated at the core of the business model, because the firm produces under contract farming agreement with smallholders improved and affordable seeds to increase smalholders productivity. Hence, **the inclsive business model** to provide farmers agricultural incomes, and affordable inputs to increase **food production**. Also, the firm entered **partnerships**

with private foreign chemical companies to access fertilisers that will be used to produce seeds, and with a public agency to produce tree seedlings. Consequently the **partnership** dimension is deemed beneficial to food production, and therefore to availability dimension of FNS.

| Dimension in the scan | Impacted FNS indicator | Dimension of FNS |
|---|---|---|
| Target | **Food production** | Food availability |
| Value chain integration | **Post harvest losses**<br>**Food production** | Food availability |
| | **On-farm income** | Food access |
| Inclusive business model | **On-farm income** | Food access |
| | **Food production** | Food availability |
| Partnerships | **National food production** | Food availability |
| CSR | *No direct impact* | |
| Responsible supply chain management | *No direct impact* | |

Results 7.6 - The impact of *Oromia Seed Enterprise* activity on indicators of FNS

Figura 7.6 - Dimensions in the scan contributing to selected dimension FNS in Ethiopia



# 8 Discussion and policy recommendations

*Results I* demonstrated that this research was able to identify empirically the core inclusive characteristics of six agribusiness companies. Next, *Result II*, investigated the body of studies describing the status quo of Ethiopian FNS, highlighting its main characteristics as well as critical stress factors. Finally, *Results III* correlated empirical to desk studies in this research to show which dimensions of the observed companies directly contributed to increased FNS in Ethiopia.

In the following section, *Results I* are discussed within a background of the literature about inclusive business approach; thereafter *pros and cons* of the IAB scan are discussed. Next, *Results II & III* are discussed to test the hypothesis, and the theoretical link between inclusive agribusiness and FNS.

## 8.1 *Results I: The inclusivity of case studies*

Inclusive agribusinesses in this research were Dutch-Funded private sector organizations working in agriculture whose activity relied on making profit while lifting people out of poverty. The results of this study shedded light on difference between inclusive agribusinesses and other investment model. By this token, only half of the interviewed companies could be really considered inclusive agribusinesses. In fact, among six studied cases only three companies had integrated poverty reduction in the business model, *i.e. Baro flowers PLC, Balegreen PLC, Oromia seed enterprise.* However, it must be stressed that this research tried to design a strict theoretical understanding of the inclusive agribusinesses, that went against the idea of firms adopting inclusive business as a form of CSR.

At onset of this research (**chapter 2**), the concept of inclusive business had been approached from a very specific perspective: inclusive businesses were those companies adjusting their activity to the needs of the poor, and in doing so, would capture high social benefits, and strong profitability (Golja & Po, 2012; G20, 2015). The previous definition contrasts the definitions in WBCSD (2016), UNDP (2010), IFC in Jenkins et *al.,* (2010) and finally PRC (2011). Inclusive activities are performed to include poor people within companies' value chain without binding them to the core of commercial viability of the company (G20, 2015).

Firstly, in WBCSD (2016) poor or little attention was devoted to the concept of BoP fragmentation (see in *chapter 2 - Theoretical Frameworks*). Secondly, both the IFC and the PRC theorised on large scale and multinational players, studying how these companies could adjust operations toward poverty reduction goals. Thirdly, the UNDP did not benchmark inclusive businesses from the broad spectrum of inclusive business activities, *i.e.* pro-poor value chain development, responsible supply chain management, inclusive market development (IMD). The difference between the perspective in this research and the abovementioned perspectives, reflected the difference between inclusive business and inclusive activities.

Also, the specific definition in this research was different from other approaches because it expected inclusive business to integrate the poor at the core of the value chain, adjusting firms' business models to poverty reduction goals, *i.e.* core integration occurs when the poor provide the firm with an unreplaceable service to the company like customer base, strategic positioning, or valuable inputs supply. Empirical results indicated that this approach also existed in practice and contributed significantly to FNS. For instance, half of the studied companies performed core value chain integration, *i.e. Baro flower PLC, Balegreen PLC, Oromia Seed Enterprise*; and in such cases company's contributions were directed to more dimensions of FNS. While the remaining companies, which had engaged the poor mostly as suppliers, had to offer some benefits to poor people such as electricity, sanitation, water, market access, trainings, quality increases and access to

technology. Yet, such benefits were supportive to company activity and more directed to increase company activity than to decrease poverty.

Generally speaking, empirical results indicated that companies most commonly integrated the poor as suppliers targeting smallholders, rural population and urban workers. These results indicated that Dutch funded agribusiness approached the poor mostly as resources and operationalised inclusive business by integrating smallholders as a form of pro-poor supply chain management. On the other hand, two companies had operationalised inclusive business integrating the poor as customers for affordable seeds and seedlings. In doing so, these companies would sell inputs at affordable prices to smallholders: this approach is based on increasing the wellbeing of the poor by increasing their capability to enter the market (Golja & Po, 2012). Next, two processing companies claimed that their presence in the market has direct benfits for the poor as costumers. Yet, the company did not used targeted prices; in fact, no mention was made of their products to be sold at affordable prices. So, even though, their can be substantial contributions, there is poor evidence about the fact that the poor will be in a position to actually benefit from company activity.

Next, although every respondent declared to employ a pro-poor business model, results pointed to only that half of the companies using an inclusive business model; core integration occurs when the poor are integrated by providing an unreplaceable service to the company, *i.e.* customer base, strategic position, input-supply. To investigate the relationship between poverty reduction and the business model, this research had asked respondents to state company's inclusive value proposition. The value proposition is a simple statement describing how the company creates value, that also represents company's contribution to its costumers, stakeholder and even shareholders (Patala *et al.,* 2016; UNDP, 2010). The three companies who did not perform core value chain integration also lacked a clear proposition to reduce poverty. In such cases company strategy rarely aligned to the needs of the poor. Thus, these companies did not operationalise their business model in a way making company activity necessarily beneficial to poverty reduction. Consequently, microeconomic growth was not dependent on reducing poverty, and therefore companies could easily replace the poor in the value chain, *e.g.* switch to other wealthier costumers or more endowed suppliers.

Then, it should be mentioned that the partnership dimension had been found highly relevant to inclusive business; four businesses reported having civil, private and public partnerships. Partnerships were useful to access extra inputs, *i.e.* post-harvesting technology, capacity building, *i.e.* trainings, and even quality and environmental standards. These contributions indicated that civil and private partnerships have had a great deal of importance to SMEs in Ethiopia, primarily due to the absence of valuable physical inputs too costly to be imported by businesses, *e.g.* fertilisers, machinery.

Finally, other noteworthy aspects include the CSR and responsible supply chain management, which were introduced to investigate how inclusive agribusinesses addressed adverse impacts resulting from their operations. The largest firm in the study, which was also a governemental firm, had the most complete risk management system directed to both social and environmental impact. Results also suggested that land issued in Ethiopia are significant and most of the firms reported to have deal with farmers who had lost access to land; this was done by paying a compensation to farmers and by providing them with work as daily labourers. On ther other hand, regarding environmental issues, firms integrated environmental risk reduction with different capabilities; small rural firms reported to work under national regulation, while large firms reported a more complex environmental system management based on established CSR principles, including stakeholder management, waste management, external auditing, and supply chain management for sustainability.

### 8.1.1 *Reflection on the IAB scan*

The IAB scan is an experimental data collection tool that this research aimed to test. The development of this data collection tool had took a hard time: it was drafted during desk research prior to the fieldwork period and then reviewed and finalised during the research internship in Ethiopia.

At the onset of this research, the IAB scan amounted to 12 dimensions. However, it was reduced during the fieldwork period to make it simple, practical and immediate, as suggested by a reviewer at *Fair & Sustainable*. Managers described in the IAB scan how their company contributed to poverty reduction by referring to targets, value chain approach, business model, partnerships. These categories had been selected as they were strongly linked to inclusive business approach by the current literature (s*ee chapter 4 - Reseach design*). Finally, CSR and responsible supply chain management formed the final two modules of the scan as inclusive agribusiness operations are expected to have a triple bottom line, and agribusinesses are today under severe scrutiny due to significant environmental and social impacts (UNDP, 2010; OECD-FAO, 2011). The importance of this set of qualities became evident during meetings with Ethiopian-Dutch business managers.

Next, the IAB scan had proved to be an innovative as well as helpful data collection tool for empirical research but for data collection to be successful the scan empirical research needs to be planned carefully. On the positive side, the tool allowed this research to gain access to fully informative data and to build a company profile in a rather immediate way. On the negative side, empirical research indicated that it was harder to complete the scan without external support for Ethiopian managers. The actual dynamics of the fieldwork period indicated that the design of the data collection process should be improved. For instance, participants loss was massive: the IAB scan was handed out to 14 respondents, expected to complete it and send it back. Yet, only six has participated to this research. Furthermore, although every respondent had received preliminary training to approach the IAB scan, in three cases respondents have asked support during completion, because it was not possible for them to master English business terminology. Consequently, it has become evident that the IAB scan has a greater potentiality to be used as an instrument for running interviews and categorise data across deductive nodes represented by its various modules.

## 8.2 ***Results III: The relation between inclusive agribusinesses and FNS***

Under the theoretical premises of inclusive business approach, shared benefits included *food security*, rural incomes and agribusinesses profitability (FAO, 2015). The established view is that of increasing smallholders FNS by establishing business linkages between small rural producers and foreign firms. At the onset of this research, it had not been possible to theorise a clear theoretical link between inclusive agribusiness and FNS. Instances of the link between FNS and inclusive business approach were heterogeneous and confused, both regarding the targeted-actors and type of development intervention.

Indeed, others suggest inclusive business linkages in agriculture as coming with risks of detrimental impacts on farmers' livelihoods and their FNS (Chamberlain & Anseeuw, 2017; West, & Haug, 2017). Approaches based on smallholders farmers integration as suppliers are extensively evaluated in the literature about inclusive business models. Sometimes these are criticized as in the case of Chamberlain & Anseeuw (2017), claiming that the benefits of such approaches are limited to productivity and quality increases, with low changes in farmers' income; as such this type of intervention seemed to have yielded more benefits companies than smallholders. Secondly, West and Haug (2017) strongly criticized the capacity of inclusive agricultural investments to serve both

commercial and development functions, and noted arising power asymmetries, as well as consistent disputes between farmers and buyers.

One key to success for the studied companies had been the integration of smallholders at multiple stages of the value chain. In one case, a firm integrated rural producers firstly as suppliers, secondly as customers and thirdly as suppliers again. Next, another firm produced seeds along with smallholders providing them access to incomes, fertilisers, technologies and trainings and then procured seeds and sell them back on the market at affordable price.

Noteworthy, this research reported only on direct contributions to FNS; this decision could have somehow restricted the spectrum on contributions to FNS. For instance, in one case a firm had declared to be the first producers of dairy products in Ethiopia. Consequently, its activity would benefit dietary diversity and better FNS for its costumers. Indeed, results from the indicator analysis supported this view. In fact, little dairy products are usually consumed in Ethiopia, and they are the one contributing the most of protein intakes in children's diet. Yet, the company did target poor people directly, as it did not report to sell its products an affordable price. Thus, it was not possible to establish if company activity was accessible to the poor. So, the question remains: How company products could have been beneficial to the poor if these were sold at a high, or even regular price?

By the same token, the indicator anlaysis indicated that waged labour for low skilled workers has poor direct contributions to FNS. Wages in Ethiopia are meagre and below substitence level (Van Westen *et al.,* 2013; Douma *et al.,* 2017). Furthermore, food prices in Ethiopia had been soaring during the last ten years, while income has been stagnating (Melesse, 2017). For instance, in 2010/2011 Ethiopian food poverty line was 1985 ETB/month (WFP), and food prices has steadily grown ever-since; while in 2018 minimum wages were at 420 ETB/month, and customary wages about 1000 ETB/month (Douma *et al.,* 2017). How could increases in wage opportunities have led low skilled workers to increased FNS status if they these were below the food poverty line?

To conclude, results in this study indicated that the hypothesis was accurate: Dutch FDIs often contributed to FNS in Ethiopia, yet direct contributions are rarely directed to most pressing issues, and address most often the dimensions of food availability and food access, by increasing farm's productivity and providing market access for farmers to increase agricultural incomes. Also, results indicated that Dutch companies had another important strategic dimension; namely that of working to reduce Ethiopian trade deficit. This was evident as the NL has supported projects to ignite import substitution strategy, access to export markets and increased overall modernisation of agricultural supply chains.

## 8.3 *Policy recommendations*

This research is also part of the *follow the food initiative,* which maps the contributions of Dutch agribusiness developement and related FDIs to FNS impacts. This iniative drags together several players including the Dutch Ministry of Foreign Affairs and IDS departement at Utrecht University, to evaluate agribusiness development and foster poverty reduction in Ethiopia, Kenya and Ghana. In the following section a series notes and policy recommendations resulting from this research regarding the relation between inclusive agribusinesses and FNS, are presented for interested readers involved in the *project.* Namely:

1. *Policies based on increasing agricultural employement of low-skilled workers did not increase FNS status in Ethiopia*

Dutch approach to poverty reduction in Ethiopia has followed the greater plans of the Ethiopian government, and among the others, aimed to increase agricultural income opportunities. However,

it was evident from this research that in Ethiopia it is not sufficient providing wages to low skilled workers to increase their FNS status. (See also Van Westen *et al.,*2013; Melese, 2017; Douma *et al.*, 2017). Hence, this research recommends Dutch agribusinesses investors to pay Ethiopian workers in the agribusiness sector living wages that are wages above estimated substistence level, which can significantly increase workers' FNS.

2. *Irrigation provision could significantly reduce the vulnerability of rural producers*

This research has identified in irrigation provisioning the single most significant factor to contribute to rural FNS in Ethiopia. For instance, Mohamed (2017) indicated that the food security status of 28 million Ethiopian is still dependent on climatic variability. Smallholders cultivate most of arable land, with low productivity and significant rainfall dependence. Due to the fact that slighlty more than 1 per cent of arable land is under irrigation, this research recommends Dutch donors to support projects that increase irrigation provision to smallholders.

3. *For inclusive businesses, the poor constitute company's largest group of stakeholders*

Inclusive businesses establish company operations on poverty reduction by integrating the poor within company activity. Hence, the poor are central to company commercial operations, or constitutes company's largest consumer group. For inclusive agribusiness poverty reduction is central to the core of company activity, and businesses can scale up by leading people out of poverty. Hence, in assessing inclusive agribusinesses this research recommends to look at inclusive agribusiness ability to grow operations by reducing poverty.

4. *Accessible products are critical to FNS in Ethiopia*

Food price rises are among the three most frequent shocks to FNS status in Ethiopia (WFP, 2014). Also, consumer food prices have been demonstrated to have both long-term and seasonal patterns: food prices increase seasonally from April to September causing poor nutrition both in rural and urban areas. It is recommended for policymakers to support the creation of inclusive agribusinesses investments producing affordable and nutritionally improved food products that can support nutritional status all along the year.

5. *Procuring from smallholders is not the only way to operationalize inclusive agribusiness*

Empirical results indicated that business integrating the poor at multiple stages of their value chain were the most beneficial to the FNS, while businesses approaching poverty reduction by procuring were the less impactant. In three cases, business activity generated from multiple value chain integration has resulted into a wide amount of benefits with impacts on nutrition and stability dimensions of FNS. Approaches limited on agricultural procurement are considered basic inclusive instruments, whose benefits are limited to agricultural income (Chamberlain & Anseeuw, 2017). Better incomes do not necessarily contributes to FNS in Ethiopia, which are menaced by increasing food consumer prices and decreasing food producer prices, or other shocks. Thus, this research recommends to look for innovative business solution with direct and comprehensive benefits to FNS.

6. *The IAB scan could be used as structure to investigate inclusive agribusinesses*

Finally, this research has developed an business scan to collect data on inclusive agribusinesss activity. In the previous section describing the limitations of this research (8.1.1), it was explained that the most effective way to adopt the IAB scan would be using as a guidance during interview, and to supplement it with inductive approach and grounded-theory.

# 9 Conclusion and further research suggestions

This final chapter addresseses the main research question: **How do different Dutch inclusive agribusiness investments contribute to FNS for Ethiopian nationals?** In responding this research question, this research found that best players were ones able to direct contributions to the whole spectrum of FNS, contributing actively to food availability, accessibility, use and utilization, and stability. This research aimed to test the hypothesis according to which Ethiopian FNS would benefit from Dutch FDIs providing incomes, better access to markets, efficient inputs, capacity building, and technologies. Results in this research indicated that overall Dutch businesses did contribute to FNS in Ethiopia. On the positive side, results indicated that firms could target women, smallholders and rural households successfully integrating them at the core of the business and providing them access to agricultural incomes, technologies, capacity building and better nutrition. Also, firms provided affordable seeds and seedlings to smallholders and rural households contributions were directed to the use and utilization dimension of FNS, and to the dimension of stability when firms trained smallholders to contrast droughts. On the negative side, almost none of the businesses contributed to issues that are most pressing to Ethiopian FNS, such as consumer food prices, seasonal variability nor the lack of irrigation. Finally, approaches based on smallhodlers procurement had been found to be the most common, and contributed mostly to increased food production, reduced PHL and reliable agricultural incomes.

Firstly, it had been necessary to identify and connect with 24 Dutch related agribusinesses active across a large spectrum of agribusiness sectors in Ethiopia including horticulture, livestock production and agricultural production of both cash crops and grains. It was noted that Dutch agribusiness activities contributed to the livelihoods of smallholder farmers and rural producers, with little focus on urban poor and waged workers. Secondly, an indicator analysis was run. Results for the indicator analysis suggested that food insecurity in Ethiopia was widespread across the all four dimensions of FNS, *i.e. availability, accessibiliy, use and utilization, stability*. The lack of irrigation had been found to be the major stress factor against FNS in Ethiopia; this is reflected in all four dimensions of FNS. In fact agriculture in Ethiopia has remained traditional, based on the production of cereals and directly linked to climatic patterns. Irrigation is limited to 1 per cent of arable land; this means that during dry season arable land is sufficient to feed a tiny part of the massive Ethiopian population. Agricultural producers in Ethiopia are demanding irrigation, and, Ethiopia is a country where water distress is low and water resources consitent. In the context of inclusive agribusiness this is a huge opportunity for innovative entrepeneurs to contribute to all dimensions of FNS.

Noteworthy, studied cases indicated that Dutch inclusive agribusiness did not cotributed to most urgent issues such as included lack of irrigation, high on farm PHL, ever-increasing food consumer prices, poor dietary diversity and iodine deficiency, and seasonal variability in production and prices. Also, this study has revealed that approaches based on employement do not contribute to increased FNS in Ethiopia. *Results* II overviewed the status quo of Ethiopian FNS, and indicated that wages for low and skilled workers, the vast majority of Ethiopian population, are below the 1.90 USD poverty line (see section 6.2 in *Results II*). Although the Ethiopian Government and the NL have initiated cooperate to increase employment opportunities, when wages are too low, these can hardly contribute to increased FNS. Such dimension has a special importance to the FNS of urban populations that have none, or small amounts of disposable land for self-production, and whose income is dependent on waged labour.

Finally, this research aimed to support the *follow-the-food-project* by providing a novel data collection tool to conduct emprical research and collect qualitative data. The IAB scan could be used both to collect and immediately categorize data on inclusive agribusinesses and their activity. First, it can be used as guideline for researchers to approach the concept of inclusive business, and to design interviews. Second, it can be used by researchers to run interviews, or for managers to describe their company indipendently and support to businesss managers in setting their inclusive strategy.

## 9.1 *Suggestions for further reserch*

In conclusion, this research introduces the reader to suggestions for further research:

First, this research suggests researchers to use the IAB scan as a model to collect and categorize data. When doing so researchers are recommended to use it as base for running structured and semi-structured interviews. Hence, the IAB scan will become a model to transcript interviews and categorise information through deductive codes. Adopting the IAB scan for further research will provide researchers an established definition to approach inclusive agribusiness and providing a ground for case comparison and theoretical building about inclusive agribusiness contributions to FNS.

Second, further research is suggested to separate the definition of an inclusive agribusiness from the broader definition of inclusive (agri)business. In chapter 2, it had been demonstrated that an inclusive agribusiness is an agricultural firm whose core competencies are aligned to poverty reduction goals, and whose business model can grow by reducing poverty. On the other hand inclusive business is an approach theorized for firms to expand operations in BoP markets, for instance by developing pro-poor value chains. In the first case the literature suggests that benefits for the poor are high and profitability can be consistent, while the opposite holds for the second case where firms contributions to poverty reduction are considered more hazy. So, research should further distinguish inclusive companies from inclusive approaches.

Thirdly, this research succeded only partially in tying the concept of CSR into the activity of an inclusive agribusiness. Further research should be directed at conceptualising the trade-off and opportunities for the two concepts to go together.

Finally, this research had investigated how managers did establish inclusive strategies by looking at targets, modes of integrations in the business model and the reduction of adverse impacts. However, data collected were used to investigate without measuring actual impacts resulting from company activity. Researchers should conduct ex-post evaluations to map both adverse and positive impacts resulting from agribusiness activity. This type of research will shed light on the potential value of inclusive agribusinesses activity for poverty reduction; ultimately allowing comparison between inclusive companies and inclusive activities performed by conventional businesses.

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# Annex I - data collection tool

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# *Inclusive Agribusinesses Scan*

*Understanding Dutch inclusive agribusiness activities*

# Methodology to use the scan

Agents should fill out the seven modules in the scan to reflect on business operations and their inclusive approach; by filling the scan management describes fundamental criteria leading economic inclusion at the lower stratum.

Researchers, small-scale entrepreneurs, and managers can all use the tool to investigate, or reinforce, the loop between poverty reduction and sustainable economic growth, as the dimensions in the scan enclose both perspectives.

This scan is structured in the following way, the first module is a survey to map the investment project. **The modules 2, 3, 4 and 5** are meant to collect data on fundamental factors for the success of inclusive business: the targeted population, value chain integration, the inclusive business model, and partnerships for inclusive business. **The modules 6 and 7** scan firm's approach to social responsibility.

The modules on inclusive business (2,3,4,5) will be used to highlight positive contributions to poverty reduction, while the modules on social responsibility (6,7) will be used to understand how firms address the risks of adverse impacts along agricultural supply chains.

In each module managers will find information on the specific topic selected for the module. Such information can help users to benchmark their approach to the approaches emphasized by literature on inclusive business, or relevant documents such as The OECD *Guidelines for Multinational Enterprises,* or *The OECD-FAO Guidance on Responsible Agricultural Supply Chains.*

**Guiding questions for self-reflection**
A set of questions is provided in each module to guide users through the process, and to describe their operation in the modules. Such questions should not be addressed all, but used as a guidance for critical self-reflection and better strategy setting.

***Infobox***
Infoboxes provide users with a short overview of major approaches used in the literature.

Replies can take different structures, anyway, they must be understandable, clearly written and narrowed with specificity. Descriptions may not take the form of a one-word reply or that of a list of concepts without any logical link or explanation. For instance, descriptions can have the form of a short statement or that of a structured, or semi-structured list.

## *1.1 Recommendations to users*

1. The time needed to fill up the scan should not be higher than 60 minutes
2. Users have not to fill all modules by one single session
3. The scan should be used to collect data on inclusive business activities and set poverty reduction strategies.
4. Users are recommended to fill the scan up using honesty and objectivity
5. Once filled the document, users are recommended to share it with *Utrecht University* to improve collaboration between private, public and civil actors.

# 1. Survey

**Company Details**

State the name of your company

_____

State the value chain of operations

_____

_____

_____

State the nationality of the company

_____

State your role within company organization

_____

State the year of establishment in the foreign country

_____

Question

Has your company more or less than 250 employees?

More ☐

Less ☐

Question

*Does your company had received funding from a Dutch Governamental agency?*

No ☐

Yes ☐

If yes, please state the name of the programmme:

_____

Question

*Select the the type of FDI project set by your company.*

Acquistion ☐

Greenfield investment ☐

Joint venture ☐

Other (Please state):

_____

Question

Does your company employs a pro-poor business model?

Yes ☐

No ☐

Question

*Does the investment project aims for exports or domestic consumption?*

Export-oritented ☐

National market oriented ☐

Other, please state

_____

Question

*Would you define your company, as a:*

Commercial firm ☐

Commercial firm with CSR policy ☐

Social firm ☐

Humanitarian firm ☐

Other (Please state):

_____

Question

*At which point of agricultural supply-chains does your company operate? (select more than one if that is the case):*

Control and certification ☐

Education and training ☐

Farming ☐

Farm management ☐

Financing ☐

Input supply ☐

Intermediation/consultancy ☐

Market information provision ☐

Processing ☐

Retailers and supermarkets ☐

Research and Development ☐

Service extension ☐

Trading ☐

Wholesaling ☐

Other (Please state):

## 2. The targets of Inclusive Business

**Guiding questions for self reflection**

- What are the needs of rural poor?
- What are the needs of urban poor?
- Does business have a direct or indirect impact on the needs of the poor?
- How does firm's activity increase local wellbeing?

*Please describe the buiness case for starting your firm.*

**Inclusive business grows from the needs of the poor**

People at different income levels have different disposable incomes to invest. People living at the bottom of the economic pyramid enjoy different incomes levels, that result into different capabilities to cope with basic needs. For instance the extreme poor, those living under the 2 USD per day, have more pressing economic urgencies and sometimes less non-economic capabilities that poor people with an higher income. Enterpreneurs investing at the bottom of the economic pyramid should clearly define the sub-group of the poor targeted by the inclusive business activity as well as the needs of such subgorup

In fact, successful inclusive business requires enterpreneurs to visualize the target group for inclusive business initiative as well as the specific needs such group. When developing inclusive business solutions firms have to adopt the world-view of the poor understanding their needs as well as their capability to participate to firm's processes or enjoy firm's products or services.

In business cases, enterprenuers describe the opportunity and the solution for starting a business. In the case of inclusive business, there is an economic opportunity for the firm to engage in poverty alleviation. Inclusive businesses foresee **the unique situation experienced by the poor** as the starting point for developing a business solution to meet their unserved demands. Then, enterpreneurs can either start a new firm, or adpat their business to engage in poverty reduction.

The inclusive business case is the determinant of market viability of business activity, business associations as well as international organizations requires inclusive business agents to foresee poverty reduction as clear opportunity with market potential.

# 3. Value Chain Integration

*Please describe in the above box the point of, and the rationale for, value chain integration.*

**Inclusive business offers opportunity for the poor at the different stages of the value chain**

An inclusive business models generate shared benefits both to the poor and to the firm. Depending on the opportunity foreseen by companies, inclusive business model integrate the poor along different stages of their value chains either as **costumers** or **pool resource**.

When firms approach the poor as **a resource pool**, firms either employ the poor directly, or integration aims for increasing economic activity performed by the poor. The poor are largely employed in agriculture, therefore businesses have more than one opportunity to engage such group into the value chain. For instance, the poor can be employed as selected retailers for firms to enter untapped markets, this wil offer firms an vaste costumer base and the poor will sensibly increase their incomes.

When firms approach the poor as **costumers** firms create affordable products, that are tailored to the specific situation and needs experienced by the poor. For instance, agribusinesses may develop a nutritious and affordable food product, or firms may develop, or supply and support, affordable technologies tailored to local agricultural to enhance smallholders' agricultural capability.

**Guiding questions for self reflection**

- At which point of the value chain firms integrate the poor ?
- Does firm directly contribute to food security? How?
- Does firm directly contribute to water security? How?
- What benefits for the company result from value chain integration?
- What is the capability of the firm to act against poverty?
- What is the market opportunity for economic inclusion?

***Infobox***

**Examples of inclusive agribusiness activity in the Sustainable Development Goals**

**SDG 2** - produce and provide access to fortified food and supply of micronutrients - develop innovative and more efficient farming technologies to increase productivity and income of smallholders.

**SDG 6** - Expand water [...] infrastucture to unserved areas**.**

**SDG 8** - train and employ local communities - source materials from small scale producers, sell and deliver products through local retailer and workforce.

**SDG 12** - reduce post-harvest losses through improved value chain management in rural areas.

**SDG 15** - restore plantations affected by natural/human induced disaster, to benefit local communities.

# 4. Inclusive Business Model

**Guiding Questions for Self-reflection**

- How can the busness model grow?
- How poverty eradication is integrated into firms' strategy?
- Is poverty reduction among the core competencies of the firm?
- Is the inclusive business model profitable?
- What are company goals?
- What is company's mission?
- What is company's vision?
- What is the capability of the firm to act against poverty?
- What make the engagement win/win?
- What is the capability of the firm to act against poverty?
- What makes business model successful?

*Please describe in the above box the inclusive business model and the value proposition for the firm and for the poor.*

**Inclusive Business model and the value proposition**

Inclusive business is private sector's response to poverty eradication goals, business models for poverty reduction are shared value models that create value for the poor while allowing companies to profit, and grow. In fact, economic growth is the main driver for companies to develop and operationalize inclusive business models.

**Inclusive business models** engage businesses into activities that have direct benefits for poverty reduction by integrating poverty reduction at the core of company's activities. When developing the business model, enterpreneurs should have clearly in mind criteria that have made the value proposition inclusive, such as firm's vision about poverty as well as specific targets and goals to contrast vulnerability of bottom of the pyramid stratum.

**A value proposition** is a simple statement defining how a company creates value. It reflects firm's core strategy. Value propositions are used by firms at organizational level for multiple purposes, like to visualize value accruing to shareholders and stakeholders or as marketing tools to establish a bond between the company and its customers. When stating the business model, management should make explicit how businesses create value both for the poor and the firm itself.

## 5. Partenerships for Inclusive Business

**Guiding questions for self-reflection**

- Does inclusiveness bear extra costs?
- Does the firm partner with civil agents? How?
- Does the firm partner with other private agents? How?
- Does the firm partner with public agents? How?
- How does the firm integrate the partnerships into internal decision-making? How?
- Is your business model collaborative with other initiatives?
- What economic risks face the company to work in developing countries?
- What economic risks face the company to work with the poor?
- What economic risks face the company to work with the poor?

*Please enlist in the above box the partnership undertaken by your business, make explict the rationale for undertaking the partnership.*

**Partnership support and enhance inclusive business activity**

Inclusive businesses often operate in partnership with other private, public and civil actors. This is for a variety of reasons. First, governments and donors' agencies increasingly support the inclusive business approach in development. Second, entrepreneurs aiming for inclusiveness may need external support to implement effective business models at bottom of the economic pyramid, and inclusiveness usually bear extra costs, making less attractive to conventional investors. Finally, inclusive business in developing countries face high challenges due to underdeveloped and imperfect business environments.

Cross sector partnerships are the middleground between inclusive business and inclusive growth. Because, the inclusion civil and private actors into public agendas can larger social synergies inclusive goals, avoiding fragementation and lack of communication between different social sectors. Moreover, Partnerships also bear advantages to specific projects as they exceed the individual potential of each single actor involved into one inclusive business solutions.

***Infobox***

A list of sectors for inclusive business and reasons to partner with each sector include:

**Public sector in receiving countries:**

- Capacity building
- Provision of land and supporting infrastructure
- Regulatory permission

- **Civil society organisations:**
- Access to micro-credit
- Access to scientific knowlege
- Direct knowledge of poor markets of under-served customers
- Expertise on pro-poor activites
- Networks in communities along developing countries
- Technical support and capacity building along the value chain

- **Foundations and international donors:**
- Provision of risk capital, loan guarantees and project development funding
- Technical assistance

- **Private sector:**
- Access to international markets
- Acess to distribution networks
- Acess to knowledge an inputs such as machinery, seeds
- Engagements with unusual suppliers
- Quality certification

# 6. Corporate Social Responsibility for Multinational Enterprises

**Guiding questions for self reflection**

- Can CSR policy be expanded? How?
- Can you list the UN Sustainable Development Goals?
- How are considerations about stakeholders included into firm's strategy?
- How does firms perform risks management?
- How does your firm minimizes risks for stakeholders?
- Is your firm able to influence suppliers to have a more responsible business conduct?
- What is firm's social responsibility?
- Who are firm's stakeholders?
- How does the firm benefit from the integration of CSR into company's activity?

***Infobox***

Firms can improve their responsible business conduct applying:

a. Codes of conduct
b. Disclosure, auditing and reporting
c. Due diligence
d. Good governance principles
e. Responsible supply chain management
f. Stakeholders engagement

**Due diligence**

Due diligence is the process whereby enterprises account for adverse impacts either caused or contributed to by their operations, products or services. Due diligence requires firms to act against, and account for how they address adverse impacts as part of internal business decision-making and risk management systems. Potential impacts are to be addressed via prevention and mitigation. While, actual impacts requires remediation measures, including compensation, to be established.

**Responsible supply chain management**

Responsible supply chain management is the system whereby firms account for, and mitigate, adverse impacts generated by their supply chain. Adverse business impacts are either directly caused by firms' activities, or, indirectly by business relationships. An enterprise yields an adverse impact when its activities are tied by a proven and direct link to undesirable developement impacts, then it should apply due diligence principles to address such risk. When adverse impacts are caused by entities sharing a direct business relationship with the firm, enterprises are advised to address them either via leverage to influence, or to cease the business relationship. The OECD *Guidelines for Multinational Enterprises* invite firms to monitor their supply chain via contractual arrangements such as management contracts, pre-qualification requirements such as certifications, voting trusts, and licence or franchise agreements.

**Additional implementation measures**

Other implementation measures for responsible business conduct include stakeholder engagement, disclosure and the adoption of codes of conducts. **Stakeholder engagement** is an opportunity to identify, prevent and mitigate impacts against entities directly related to firms' activities. Stakeholder engagement involves an interactive communication process between a firm and the people interested by firm's operation through hearings and consultations, for instance via focus groups discussions or interviews.

**Codes of conducts** are voluntary and internal systems of norms and codes of behavior, that include developing and applying **good corporate governance principles**. Codes of conducts allow firm to establish internal view on sensitive issues and responsible business conuct both for domestic and foreign entities as well as other partners within the industry where firms operate. Also, codes of conducts can be shared with other firms in order to assure industry-wide cooperation on sensitive issues.

Resposnible firms practice **disclosure** on social and environmental performance via external auditing and reporting to prevent and mitigate adverse impacts for all relevant stakeholders.

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# 7. Responsible Agricultural Supply Chains

**Guiding questions for self reflection**

- How do you monitor resource use?
- What parameters of sustainable resource use do you make reference to?
- Can your company buy land directly from farmers in the nation where operations take place?
- How does your company compensates adverse social and environmental impacts along the supply chain?
- Do you apply responsible supply chain management principles and systems?

*Please describe in the above box how your company addresses environmantal protection and sustainable use of resource, and local's communities tenure rights and access to natural resources*

In the following boxes, two abstracts from section 2 - **Model Enterprise Policy for Responsible Agricultural Supply Chains** - of *The OECD-FAO Guidance on Responsible Agricultural Supply Chains* are reported. In section 2, a model of standards and self-commitments for agribusinesses to build a responsible supply chain had been developed. Agribusinesses aiming for improvements in their responsible supply chains will find points of reflection as well as practical commitments to ensure positive impacts on local communities and the environment. In fact, for the purpose of this scan is also to overcome the risks of possible adverse impacts on the environment and tenure rights were considered.

**Environmental protection and sustainable use of natural resources**

"We will establish and maintain, in co-ordination with responsible government agencies and third parties as appropriate, an environmental and social management system appropriate to the nature and scale of our operations and commensurate with the level of potential environmental and social risks and impacts.

We will continuously improve our environmental performance by:

- preventing, minimising and remedying pollution and negative impacts on air, land, soil, water, forests and biodiversity, and reducing greenhouse gas emissions
- avoiding or reducing the generation of hazardous and non-hazardous waste, substituting or reducing the use of toxic substances,
- and enhancing the productive use or ensuring a safe disposal of waste
- ensuring the sustainable use of natural resources and increasing the efficiency of resource use and energy
- reducing food loss and waste and promoting recycling
- promoting good agricultural practices, including to maintain or improve soil fertility and avoid soil erosion
- supporting and conserving biodiversity, genetic resources and ecosystem services; respecting protected areas, high conservation value areas and endangered species; and controlling and minimising the spread of invasive non-native species
- increasing the resilience of agriculture and food systems, the supporting habitats and related livelihoods to the effects of climate change through adaptation measures."

**Tenure rights and access over natural resources**

"We will respect legitimate tenure right holders and their rights over natural resources, including public, private, communal, collective, indigenous and customary rights, potentially affected by our activities. Natural resources include land, fisheries, forests, and water.

To the greatest extent possible, we will commit to transparency and information disclosure on our land-based investments, including transparency of lease/concession contract terms, with due regard to privacy restrictions.

We will give preference to feasible alternative project designs to avoid or, when avoidance is not possible, minimise the physical and/or economic displacement of legitimate tenure right holders, while balancing environmental, social, and financial costs and benefits, paying particular attention to adverse impacts on the poor and vulnerable.

We are aware that, subject to their national law and legislation and in accordance with national context, states should expropriate only where the rights at issue are required for a public purpose and should ensure a prompt, adequate and effective compensation.

When holders of legitimate tenure rights are negatively affected, we will seek to ensure that they receive a prompt, adequate and effective compensation of their tenure rights being negatively impacted by our operations."

## Annex II - IAB scan results matrix

| Company name | | |
|---|---|---|
| *1. The targets of inclusive business* | | |
| *Target* | *Needs* | |
| | | |
| | | |
| *2. Value chain integration* | | |
| *Type of value chain integration* | *Benefits* | |
| | | |
| | | |
| | | |
| 3. *Inclusive business model* | | |
| *Activity* | *Descrpition* | |
| | | |
| | | |
| 4. *Partnerships* | | |
| Sector | actor | reason |
| | | |
| | | |
| *5. CSR* | | |
| *Activity* | *Description* | |
| | | |
| | | |
| | | |
| | | |
| *6. Responsible Supply chain management* | | |
| *Issue* | *Description* | |
| | | |