Leveraging a More Sustainable Global Agricultural System: Improving Multinational Organizations' Capacities to Procure Sustainably Grown Agricultural Commodities

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Abstract:
The procurement of agricultural commodities by multinational organizations has been identified as a leverage point for moving the global agricultural system towards sustainability. This study focuses on how multinational organizations can improve their capacities to procure more sustainably grown agriculture commodities. Using the Framework for Strategic Sustainable Development (FSSD) to create a theoretical ‘Ideal Case’ for procurement practices, this study analyzes the key strengths and weaknesses of existing practices surrounding the procurement of agricultural commodities in order to determine how they can improve. Interviews with four multinational corporations, one INGO and several experts in the field showed various weaknesses, including a lack of whole-system perspectives, inadequate definitions of sustainability, and weak strategies and tools to support organizations’ movements towards sustainability. Using these findings, recommendations were created to provide procurers, sourcing managers, supply chain managers, and sustainability managers with the necessary guidance to create conditions enabling the procurement of more sustainably grown agricultural commodities. The recommendations call for multi-stakeholder cooperation, increased use of impact assessments, long-term sustainability goals, and credible certification systems.

Keywords:
Procurement, Framework for Strategic Sustainable Development, Agricultural commodities, Multinational organizations, Sustainability, Sustainable agriculture
Statement of Contribution

From the formation of our topic to the final draft, this thesis was carried out in a collaborative manner, with each of us contributing equally and bringing our various experiences, strengths, skills and ideas to the entire process. Core ideas emerged through dialogue in our regular group meetings, and every decision was reached through consensus. As a group, we were unified by our high expectations and our desire to study a topic with high impact potential.

Christiane used her inspiring work ethic to take the lead on researching, coding, transcribing interviews and searching for contacts. Her businesslike approach kept us all on track and her calm nature served to keep us all grounded.

Eric used his skills in communication and critical thinking in writing and editing drafts, conducting interviews, developing ideas and ensuring a proper application of the FSSD. His humor kept the mood light while his high standards kept us focused on a quality result.

Kyla drew on her extensive research experience to serve as an ‘ideator’, editor, and writer. Her relaxed nature and positive outlook brought optimism to our group, even as we argued and debated ideas in the stale air of our windowless study rooms.

Throughout this group-learning journey, we experienced many highs and lows. We were frustrated by the difficulties of getting interviews, but refreshed by the friendly and open professionals that we spoke with. We constantly struggled with the best method of addressing this broad topic that has been so seldom studied. We are thrilled to have all maintained such strong working relationships and to have never lost interest in this topic of extreme importance.

Karlskrona, May 2013

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Christiane, Eric, Kyla
Executive Summary

Introduction
The Industrial Revolution led to a variety of positive advancements for humankind that, while beneficial on many levels, have also stressed the planet’s ecosystems and caused significant constraints on its natural resources. Society of the twenty-first century now faces a variety of global sustainability issues, ranging from “resource constraints, financial instability, inequalities within and between countries [and] environmental degradation – a clear sign that ‘business-as-usual’ cannot continue” (Will et al. 2011, 756-757).

The modern global agricultural system is both a victim of, and one of the top contributors to various sustainability-related challenges. These challenges include land use change, biodiversity loss, water shortages, greenhouse gas emissions, soil degradation and chemical runoff, among many others (Foley et al. 2011). This same system will be required address problems created by the ‘double explosion’ of population and affluence in the coming decades. According to Foley et al., “We face one of the greatest challenges of the twenty-first century: meeting society’s growing food needs while simultaneously reducing agriculture’s environmental harm” (2011).

With over a billion people employed by the agricultural sector (FAO 2012), it is an overwhelming challenge to enact widespread change at the farm level. The same could be said of the consumption side, which is composed of billions of consumers with varied needs, traditions, languages, and incomes. Linking farmers and consumers are 300-500 companies that control 70% of the consumer choice (WWF 2012).

The power held by such a small number of corporations within the value chain for agricultural commodities could prove to be a silver lining if the leverage of these corporations is used to encourage a more sustainable global agricultural system. As many of them control or strongly influence nearly every aspect of the supply chain, from farming to the end consumer product, the impacts of implementing effective sustainability measures could be significant. If these large corporations were to change their business practices and purchase more sustainably grown agricultural commodities, they could make great strides to improve the global agricultural system (WWF 2012). Bringing change to a system made extremely complex by complicated supply chains, various sustainability-related certification schemes and assorted farming methods requires a strategic whole-system approach that places sustainability at the forefront.

The Framework for Strategic Sustainable Development (FSSD) was developed with the purpose of moving the socio-ecological system toward sustainability. It assists with analysis, strategic planning and decision-making in complex systems and supports organizations working towards sustainability by using a straightforward structure consisting of five levels:

Systems level: The systems level describes the system being studied, within society, and within the biosphere.
Success level: The definition of sustainability according to the FSSD is comprised of the following four Sustainability Principles that concretely and objectively define the minimum conditions necessary for environmental and social sustainability.

Strategic level: At this level, the strategic approach of ‘backcasting’ can be applied to help organizations achieve success by focusing on the end goal and taking a proactive approach. Prioritization guidelines ensure that proposed actions are moving in the right direction with respect to the Sustainability Principles, provide stepping-stones for future improvements, and deliver sufficient return on investment.

Actions level: Employing the aforementioned strategic prioritization process, actions that help to move the global socio-ecological system towards sustainability are selected.

Tools level: At this level, tools are chosen to support the actions in a variety of ways ranging from monitoring to measuring, assessing, analyzing or capacity building.

(Holmberg and Robèrt 2000; Broman 2000; Robèrt 2000; Robèrt et al. 2012)

The purpose of this thesis is to support multinational organizations in making decisions that will maximize their procurement of agricultural commodities grown in the most sustainable manner possible. The thesis aims to answering the research question, “How can multinational organizations maximize their procurement of agricultural commodities grown in the most sustainable manner possible?” The principal intended audience for this work is key decision makers who can influence sustainable sourcing practices within multinationals organizations. This may include procurers, supply chain managers, sourcing managers and sustainability managers. Our findings may also be relevant to other organizations that purchase agricultural commodities, or consultants, experts and policymakers working in the field.

Methods
First, organizations for potential interviews were identified according to the criteria of the study. An ‘Ideal Case’ based on the FSSD was developed for comparing and analyzing results and developing interview questions. Information was then gathered from semi-structured interviews with organizations and experts, Corporate Social Responsibility (CSR) reports, peer-reviewed articles, and other reports. The above information was categorized into the levels of the FSSD. Using this information and the ‘Ideal Case’, an analysis was conducted to understand existing procurement practices and how well they reach the ‘Ideal Case’ (deemed the ‘Current State’) and which practices are closest to the ‘Ideal Case’ (deemed the ‘Best Existing Practices’). Using a combination of the ‘Best Existing Practices’, FSSD teachings, and logical inference, recommendations were created to improve these organizations’ capacities to procure more sustainably grown agricultural commodities.

Results
In the ‘Ideal Case’ at the systems level, an organization takes a whole-system perspective, conducts comprehensive impact assessments, encourages stakeholder engagement and takes a long-term perspective with regard to the future availability of agricultural commodities and the
entire agricultural system. Our findings indicate that in the ‘Current State’, there are practices demonstrating that organizations are capable of a whole-system perspective, but none that fully incorporate this perspective. Organizations also show a limited and inconsistent understanding of the sustainability challenge. There is a desire for traceability of commodities, but organizations struggle with this. Some ‘Best Existing Practices’ at the systems level include consideration of future availability, recognition of the importance of traceability, and a realm of responsibility that extends to the farm level. A clear recognition of the importance of stakeholder involvement through roundtables and partnerships with other organizations were also examples of ‘Best Existing Practices’ at the systems level.

The ‘Ideal Case’ for the success level includes organizations that have definitions of success, long-term goals, and definitions of sustainably grown agricultural commodities that are aligned with the Sustainability Principles. Results show that existing definitions of success are not quantifiable nor comprehensive, and are primarily based on avoiding risk. However, there are existing definitions of success that focus on productivity and crop yield, and many organizations have set long-term goals for sustainable sourcing. ‘Best Existing Practices’ at the success level include the adoption of roundtable certification definitions of sustainability, goals of procuring 100% ‘sustainably sourced’ commodities by a specific date, and company codes of conduct that extend throughout the company’s value chain.

At the strategic level, the ‘Ideal Case’ includes overarching guidelines that incorporate sustainability into the procurement process, clear prioritization guidelines that address all procurement decisions, and ‘backcasting’ from long-term goals aligned with the Sustainability Principles. In the ‘Current State’, most decisions are made on a case by case basis and rarely consider sustainability related issues. Due to the lack of sustainability-based definitions of success, ‘backcasting’ from a vision of success is not practiced, though ‘backcasting’ from strategic goals is occasionally practiced. ‘Best Existing Practices’ include sourcing protocols and the integration of sustainability into decision-making criteria.

The ‘Ideal Case’ for the tools and actions level includes actions and tools that guide organizations in making strategic decisions that move toward their vision of success. In the ‘Current State’, certification standards have insufficient guidelines and metrics, resulting in weak credibility. Tools fail to incorporate the full spectrum of sustainability and instead only focus on segments of sustainability-related issues. These deficiencies result in suppliers’ lack of awareness of the sustainability challenge and the benefits of sustainable practices. ‘Best Existing Practices’ at the actions and tools level include procurement decision support tools, sustainability education at the company level, roundtable certifications with specific and robust metrics, and the use of tools that assess impacts and future supply and demand. Other ‘Best Existing Practices’ include farm-level education, as well as working with sustainability organizations to improve resource management and social conditions for farmers.

Recommendations
The following recommendations are suggested to help multinational organizations procure more sustainably grown agricultural commodities:
Systems-level improvements that include:

- Expanding a whole-systems perspective through comprehensive stakeholder engagement;
- Increasing impact assessments to improve understanding of the environmental and social impacts of agricultural practices for procured commodities; and
- Employing future supply/demand assessments for better understanding and communicating the scope of actions that must be taken to enable the agricultural system to meet future demands and organizational goals.

Supply chain cooperation and farm-level initiatives that include:

- Building a shared vision of sustainable procurement amongst the various actors within the supply chain by initiating dialogues and creating forums for communication;
- Improving farm-level education initiatives to include more education related to farming practices that improve ecological sustainability while also increasing yields and decreasing resource usage; and
- Maximizing alignment of farm-level initiatives with the organization’s supply chain.

Strategic Goals and Definitions of Sustainability at the Success level that include:

- Improving upon existing standards defining what constitutes a sustainably grown commodity to increase alignment with the Sustainability Principles, as well as developing standards for commodities that currently lack roundtable or other certification standards;
- Developing long-term goals for the quantity of a certified or ‘sustainable’ commodity that an organization will purchase;
- Continuously improving upon previously developed standards and metrics with the aim of maximizing alignment with the Sustainability Principles; and
- Pushing for the development of unifying certification standards.

Proactive strategic approaches that include:

- Developing clear sourcing protocols for every agricultural commodity purchased that require procurers to gather commodity and supplier-specific information on the sustainability of the practices used to grow the commodity; and
- Educating procurers on sustainability issues related to the particular commodities that they procure, enabling them to properly prioritize sustainability and make informed purchasing decisions that are in line with the organization’s long-term goals.

Discussion

In summary, the main issues with the current state of the sourcing of agricultural commodities that need to be addressed by multinationals in order to decrease their impact on the unsustainability of the global agricultural system include the following:

- Insufficient comprehensive, whole-system perspectives and understanding of the sustainability challenge with regard to future availability, human impacts, and the full scope
of impacts that large procurers of agricultural commodities have on the global agricultural system;

- Insufficient implementation and development of robust metrics defining what constitutes a sustainably grown agricultural commodity for all commodities procured;
- Insufficient development of long-term goals for the procurement of certified or otherwise ‘sustainable’ agricultural commodities;
- Lack of clear guidelines or protocols for prioritizing sustainability in procurement decisions; and
- Lack of multi-stakeholder cooperation limiting transparency, traceability, and access to supply chain information.

As demonstrated earlier, this thesis offers recommendations as to how these problems can be overcome, as well as what steps might be taken to help organizations source agricultural commodities that are grown in a more sustainable manner.

The main strength of our research lies in the relationships between the various organizations that we interviewed. The value of our research was improved by the size and global reach of the organizations we studied, while the relationships between the organizations that we interviewed gave us a well-rounded and comprehensive view of the current state of the procurement of agricultural commodities by large multinational buyers.

Though the overall data pool was limited by the inability of organizations to assist us with our research, and the large corporations that we interviewed were at times limited in terms of information they were willing or permitted to share, the interviews that we were able to conduct, provided us with in-depth responses and relevant data from which we could formulate our analysis and answer our research questions. The results from this study, and the relatively little data existing on this topic, are encouragement for further work in this field of study.

While the size of the organizations that we studied and the consolidation of power among such a small number of organizations can be seen as positive due to their potential to influence the sustainability of the global agricultural system, this is merely a silver lining in an otherwise unsustainable situation. Large global supply chains and multinationals are not supportive of sustainable and resilient local economies. Moreover, even if crops are grown in the most sustainable manner possible, they may not be the most sustainable option for meeting organizations’ or society’s needs.

**Conclusion**

If these large multinational organizations were to take a whole systems perspective to their practices, adopt robust definitions of sustainability, and work to encourage sustainable practices throughout their value chain, it can be assumed that the benefits could be numerous and impactful for society and the biosphere. Procurement systems that are more strategic and resilient will be able to avoid risk and meet growing demands of an increasingly complex society.
List of Acronyms

BTH  Blekinge Tekniska Högskola (Blekinge Institute of Technology)
CSR  Corporate Social Responsibility
GDP  Gross Domestic Product
EU   European Union
FAO  Food and Agriculture Organization of the United Nations
FSSD Framework for Strategic Sustainable Development
GHG  Greenhouse gas
INGO International Non-Governmental Organization
NGO  Non-Governmental Organization
OECD Organization for Economic Cooperation and Development
RSPO Roundtable on Sustainable Palm Oil
SAI  Sustainable Agriculture Initiative
SFL  Sustainable Food Lab
SPs  Sustainability Principles
WWF  Worldwide Fund for Nature (formerly World Wildlife Fund)
WFP  World Food Programme

Acronyms for interviewed organizations

CT   Large Commodity Trader
FD   Food Distributor
GFC  Global Food Company
IO   International Organization
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1 Introduction

1.1 Sustainability Challenge

The Industrial Revolution, combined with an era of unparalleled innovation in the twentieth century, led to a variety of positive advancements, including the eradication of diseases, increased life expectancy, and an improved overall quality of life. These levels of human development, unrivalled in human history, have also damaged the planet’s ecosystems and caused significant constraints on its natural resources. Society of the twenty-first century now faces a variety of global sustainability issues, ranging from “resource constraints, financial instability, inequalities within and between countries [and] environmental degradation – a clear sign that ‘business as usual’ cannot continue” (Will et al. 2011, 756-757).

The Ecological Footprint Indicator, which compares humanity’s ecological impact with the amount of productive land and sea area available to supply key ecosystem services, shows that humanity used the resources and services of 1.5 planets in 2007 (Ewing et al. 2010). If we continue with ‘business as usual’, the Worldwide Fund for Nature (WWF) estimates that by 2050, humanity would require an equivalent of 2.9 planets (WWF 2012a). According to recent studies from the Stockholm Resilience Center, the terrestrial limits of the planet are stressed, and more than one of the ‘planetary boundaries’ have already been exceeded (Rockström et al. 2009). According to recent findings by Rockström et al., “Humanity may soon be approaching the boundaries for global freshwater use, change in land use, ocean acidification and interference with the global phosphorous, [and] analysis suggests that three of the Earth-system processes – climate change, rate of biodiversity loss, and interference with the nitrogen cycle – have already transgressed their boundaries” (2009, 473). Despite these dangerous circumstances, the consumption levels of energy, water, and soil – the basic requisites of life for which there is no substitute – continue to increase (Richardson et al. 2011). Already 60% of ecosystem services are degraded or used unsustainably, leading some scientists to warn that “human activity is putting such strain on the natural functions of Earth that the ability of the planet’s ecosystems to sustain future generations can no longer be taken for granted [...] A dramatic shift in the very design of human societies will be essential” (Millennium Ecosystem Assessment 2005, 2).

The most recent projections on human population growth indicate that growth will continue, although at a decreasing rate, to nine billion people by 2042 (U.S. Bureau of the Census 2012). While the increasing number of inhabitants is clearly an issue, the level of consumption is more worrying. Within the next 20 years, world Gross Domestic Product (GDP) is projected to increase by 75%, two thirds of which will come from Organization for Economic Cooperation and Development (OECD) countries. By 2020, the current total motor vehicle stock in OECD countries will grow 32%, while motor vehicle kilometers are projected to increase 40%. Global air travel is projected to triple in the period 1995–2020. Energy use in OECD countries grew by 36% from 1973 to 1998 and is expected to grow up to 51% worldwide by 2020 (OECD 2001; International Energy Agency 2000; Carlsson-Kanyama et al. 2005).
Consequences of these rising levels of consumption include the increased use of land (Bruinsma 2003) and freshwater (Rockström 1999), as well as increased contributions to climate change, urban air pollution, and acid deposition. Exacerbating these issues are the resource extraction and agricultural output required to keep up with these consumption levels. Mining and processing of metals, especially toxic heavy metals, pollute water and threaten human health and ecological systems. Agricultural practices such as fertilization, irrigation, and the use of pesticides pollute water and alter the nitrogen and fresh water cycles (Stern et al. 1997).

The fact that the richest 7% of the world’s population is currently responsible for 50% of the world’s carbon dioxide emissions, while the poorest three billion are responsible for just 6% (Pacala 2007), is evidence that not just the natural environment is suffering. Such global inequities promote societal maladies such as human rights abuses, corruption, disease, malnutrition, and lack of access to education (Amnesty International 2009).

The sustainability challenge that society faces can be described using a funnel as a metaphor. The narrowing walls symbolize the degradation of social and ecological systems caused by society’s unsustainable activities. The declining availability of non-renewable natural resources due to human overuse and mismanagement, as well as society’s increasing dependence on such resources, are combining in complex ways, making it increasingly difficult to mitigate these problems as we go deeper into the funnel. The sustainability challenge is exacerbated by social issues such as inequality and lack of trust, which often come as a result of the increasing competition for resources. In order to avoid falling victim to the potential hazards associated with the sustainability challenge or ‘hitting the walls of the funnel’, it is essential that society act quickly. More immediate action to mitigate these problems would allow for less costly and more easily implemented solutions compared to addressing them in the future (Robèrt 2012).

Figure 1.1 The funnel metaphor.

(Adapted from the Natural Step Canada 2013a)
In order for humanity to continue to live and thrive on earth, every organization and community needs to take strategic action to eliminate their contributions to unsustainability and help others to do the same. There is a need, in other words, to ‘push open the walls of the funnel’. These actions will allow us to then regenerate and replenish the socio-ecological system.

### 1.2 The Sustainability Challenge and the Global Agricultural System

The modern global agricultural system is both a victim of, and one of the top contributors to various sustainability-related challenges. These include land use change, biodiversity loss, water shortages, greenhouse gas emissions, soil degradation and chemical runoff, among many others (Foley et al. 2011). This same system will be required to rise to the challenges created by the ‘double explosion’ of population and affluence in the coming decades. According to Foley et al., “We face one of the greatest challenges of the twenty-first century: meeting society’s growing food needs while simultaneously reducing agriculture’s environmental harm” (2011, 1).

The Industrial Revolution brought forth both the enhanced use of fossil fuels and the production and use of fertilizer. These developments resulted in the consequent conversion of land ecosystems to cultivated land (Ellis et al. 2010) and also released constraints on food production (Scheffer et al. 2001). Additionally, they increased human emissions of greenhouse gases, which contribute to climate change (Intergovernmental Panel on Climate Change 2007).

The global environmental impact of agriculture is monumental. Poor farming practices have left 40% of the planet’s agricultural soil severely degraded to the point of significantly reduced productivity. Soil erosion has led to soil loss that exceeds the rate of replenishment by factors of 36 in developed countries and 54 in undeveloped countries (Richardson et al. 2011). It is this very soil that must be used to provide the nutritional and caloric demands of a food supply that will be required to double to meet the needs of the global population in 2050. Moreover, the global agricultural system, which accounts for 85% of global freshwater consumption, with 70% of freshwater withdrawals going to irrigation, will be required to make due with decreased water supplies, as the world’s population is projected to be in severe water stress by 2030 (Shiklomanov 2000). Agriculture currently accounts for an estimated 10% to 12% of global greenhouse gas emissions, but this estimate does not include the impacts of fuel use, fertilizer production or land use change (Smith et al. 2007). With these additional factors included, estimates are as high as 30%, with land use change alone accounting for 6% to 17% of global emissions (Bellarby et al. 2008).

The societal issues created by the current state of the global agricultural system extend beyond the effects of its environmental impacts, as there are also many problems regarding the quality of life for the people that rely on agriculture for their livelihoods. The negative impacts that agriculture has on people in these communities are various. Population growth and increased consumption has led to an increase in the demands put on the planet’s already diminishing
agricultural resources, which has inevitably led to a reduction in quality of life for some (Clay 2004). Agriculture remains one of the three most hazardous industries to in which to work, as farms are often rife with labor exploitation, unsafe working conditions, and sometimes even lack of formal contractual arrangements. Roughly 50% of fatal workplace accidents worldwide occur among agricultural workers (International Labour Organization 2010). Human rights violations at the farm level can be seen in the form of unregulated working conditions. For example, it is common that sugarcane producers have little or no influence on price negotiations. In some cases, farmers even fail to earn the minimum wage, which can drive them into cumulative debts when natural disasters destroy their harvest or the cost of fertilizers rises (Oxfam 2010). The use of dangerous agrochemicals without protective clothing can lead to severe health problems, which can be aggravated by a lack of access to medical facilities. Women suffer traditional gender biases, leading to discrimination and inequality (Hoffman 2013; Oxfam 2013). Furthermore, up to 60% of the 450 million workers in agriculture live in poverty. In Nigeria, some farmers earn only $2 per day when Mars sells its chocolates for more than ten times what a farmer in Nigeria might earn for the same amount of cocoa. In Cote d'Ivoire, a cocoa producing country, the poverty line is 1608% higher than what a cocoa farmer makes annually (Oxfam 2013).

The use of valuable agricultural resources for the production of commodities for export leads to less fertile land and clean water available to grow food for local communities (Hoffman 2013). Furthermore, there is a particular need to address social abuse issues in developing countries, like the largely unrecognized role of women in agriculture, poor labor standards, low wages, dangerous working conditions, inability to manage risk and cope with income or price shocks, child labor, and the lack of a social dialogue to address these issues (International Labour Organization 2010).

While the global agricultural system contributes to many environmental and social problems, it is essential to feeding the over seven billion people inhabiting the earth. According to the Food and Agricultural Organization of the United Nations (FAO), the world population is expected to reach 9.1 billion by 2050, while the demand for global food, feed, and fiber is expected to grow by 70% (FAO 2009), placing this complex system under even greater stress. Failure, however, is not an option, as our dependence on the global agricultural system for our daily needs will only increase.

### 1.3 Procurement as a leverage point

With the enormity of the issues facing the global agricultural system, it is necessary to identify key leverage points where there is high sustainability impact potential. Massive volumes and varieties of products based on agricultural commodities 1, ranging from food and cosmetics to

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1 The term “agricultural commodity” has no universal definition, but it is determined by the United States Department of Agriculture as derivations “from farming or the cultivating of the soil, producing crops, and raising
clothing and household products, are supplied to consumers by the agricultural sector. As previously discussed, the current system directly contributes to many environmental and social problems rooted in how crops are presently grown.

With over a billion people employed by the agricultural sector (FAO 2012), implementing widespread changes at the farm-level would be challenging. The varied farming techniques, standards, regulations, and cultures at the farm level make it a daunting task to enact change at this end of the supply chain. The same could be said of the consumption side, which is composed of billions of consumers with varied needs, traditions, languages, and incomes. Linking these farmers and consumers are a relatively small number of companies (Clay 2004). According to the WWF there are 300 to 500 companies that control 70% of the consumer choice (WWF 2012b), and only 300 to 400 buyers make purchasing decisions for any single commodity. As for the power of corporations, there are less than half as many large multinational companies in existence today than there were in 1980s, illustrating a trend in consolidation of buying power. According to a recent report by Oxfam, “[large commodities trading firms] continue to exert a great deal of influence over global food systems and over the lives and consumption patterns of farmers and consumers throughout the world” (Oxfam 2012, 8).

In many instances, the majority of the agricultural commodities trade is highly concentrated between only a few companies. For example, only four companies worldwide — Archer Daniels Midland (ADM), Cargill, Bunge, and Louis Dreyfus – control as much as 90% of the grain trade (Oxfam 2012; Hoffman 2013). Moreover, ADM Milling Co., ConAgra, Inc., and Cargill control 55% of the flour milling industry (Heffernan et al. 2007). In the processing sector there are only fifty companies that control 26.8% of global packaged food retail. Nestlé SA, Kraft Foods Inc., Unilever Group, PepsiCo Inc., and Danone are the biggest players in this division (U.S. Department of Agriculture 2007). In 2005, the top U.S. food processing companies were Tyson Foods Inc. ($23.9 million), Kraft Foods Inc. ($23.3 million), PepsiCo Inc. ($21.2 million), and Nestlé (U.S. and Canada, $20 million). Emerging players in the control of agricultural commodities are food retailers such as Walmart and Carrefour, which control crops from farms to store shelves (Oxfam 2012). A mere three food and beverage companies – Mars, Mondelez International, and Nestlé – control more than 40% of global chocolate market share. Together these companies purchase nearly one third of the world’s harvested cocoa and net more than $45 billion per year in confectionary sales. However, this rise in sales has not translated into a better life for the more than 5.5 million small-scale farmers who currently supply 90% of the cocoa used by major food and beverage companies (Oxfam 2013).

Some of the resulting problems of this concentration of market power in the agricultural sector are:

livestock.” (United States Bureau of the Census 2013). The thesis focuses on agricultural commodities excluding livestock and includes the production of agricultural commodities at farm level.
Globalized supply chains give retailers the ability to get products from where they cost the least, putting pressure on suppliers to accept lower prices. Squeezed between low returns and high-priced farm inputs, farmers around the world have experienced declines in net farm income as well as weakened bargaining positions and less market power (Worldwatch Institute n.d.; Hoffman 2013).

There is little room left in the global food system for independent farmers and retailers, as large multinational corporations dominate markets. As de Haen et al. point out, “the concentration of food trade in the hands of a few retailers and large market intermediaries threatens the existence of small traders, small business, central ‘spot’ food markets and neighborhood stores” (2003, 690).

In low-income countries, where many commodities are produced, “low commodity prices and high costs of moving up the value chain are marginalizing agricultural producers. Disparities in bargaining power, information, and access to credit may entrench an anti-poor and anti-rural bias in markets even if trade rules could be reformed” (Green et al. 2003, 18).

Production, processing and distribution stages have all been built on inexpensive petroleum and globalized value chains. Should fuel become too scarce or expensive, a shutdown of the agricultural production system for a few weeks could mean the loss of the year’s crop (Heffernan et al. 1999).

Relatively few crops, such as corn, rice, wheat, and soy, dominate the current agriculture system. Such a system is naturally low in resilience and thus subject to collapse (Williamson 2013).

The immense power held by these few corporations within the value chain for agricultural commodities, however, could prove to be a silver lining if this leverage is employed to encourage a more sustainable global agricultural system. As many of them control or strongly influence nearly every aspect of the supply chain from farming to the end consumer product, the result of implementing effective sustainability measures would be significant. According to research conducted by the WWF, if large corporations move their business practices towards sustainability, significant change in the global agricultural system is possible: Due to competition among farmers for the business of multinational companies, shifting 20% of the demand could shift as much as 50% of production (WWF 2012b).

Within these companies, procurers serve as gatekeepers by influencing the types and volumes of the materials and components that enter their supply chains, as well as the producers from whom they are purchased. Procurement, therefore, plays a critical role through the acquisition of goods and services (Leire 2009). The criteria organizations use in selecting goods for procurement significantly impacts the socio-ecological system. Considering that there is a wide range of stakeholders connected to procurement practices, procurers have the potential to influence every stage of the life cycle depending on their demands. Thus, the purchasing decisions of procurers can serve an important role in working towards sustainability.
In addition to multinational corporations, International Non-Governmental Organizations (INGOs), especially those that rely on agricultural commodities, are capable of using their purchasing power to bring change to make the global agricultural system more sustainable. Not only are these organizations reliant on the availability of agricultural commodities to meet the needs of the millions of food-insecure people that depend on their services for survival, but they also need to purchase them at a reasonable and competitive price. An overwhelming portion of the population growth in the next century will take place in the least developed countries and will occur predominantly among the poorest populations (United Nations Population Fund 2011), making the role of these organizations essential for the survival of millions. The World Food Programme (WFP), “the world's largest humanitarian agency”, feeds more than ninety million people in 75 countries annually (WFP 2013). In 2011 alone, it purchased $1.232 billion worth of food, amounting to 2.4 million metric tons (WFP 2012a).

It is easy to demonstrate the influence that these multinational organizations wield over the global agricultural system by simply explaining the sheer volume of commodities that they purchase and the percentage of certain commodity markets that they control. The issue, however, is understanding how these organizations can change their practices in order to use this influence to leverage a more sustainable global agricultural system. This challenge requires an approach that allows for the successful navigation of a large and complicated system made up of complex global supply chains, various sustainability-related certification schemes, and organizations that have only just begun to prioritize sustainability within their decision making processes.

1.4 Addressing sustainability within complex systems using the Framework for Strategic Sustainable Development (FSSD)

In order to look at the aforementioned challenges from a whole-systems perspective and to prevent well-intended actions from having unintended, negative consequences, the Framework for Strategic Sustainable Development (FSSD) was developed with the purpose of moving the socio-ecological system toward sustainability. This framework provides a way to structure and organize complex planning endeavors without missing the bigger picture or getting lost in complexity and detail. The FSSD assists with analysis, strategic planning and decision-making in complex systems and supports organizations working towards sustainability. It employs a whole-systems perspective, a vision of success based on scientifically-based system conditions for sustainability, and strategic approaches to decision-making, including guidelines for selecting actions and tools that will aid in reaching the vision of success (Robèrt 2000, Robèrt et al. 2002). Thus, it assists strategic planners or decision-makers in finding ways to create a more sustainable socio-ecological system by eliminating contributions to unsustainability.

The FSSD consists of the following five levels:
**Systems level:** The systems level describes the system being studied, within society and within the biosphere (including the sustainability challenge, please see Section 1.1). Planning generally does not affect only separate parts or topics, but has consequences to broader, interconnected issues within the socio-ecological system. This is an important function of the framework, as it allows people to become aware of problems and view them from a systems perspective, creating the potential for the development of solutions with a shared understanding of the problems that need to be solved.

**Success level:** The definition of sustainability according to the FSSD is comprised of three Sustainability Principles that concretely and objectively define the minimum conditions necessary for environmental sustainability, as well as one Sustainability Principle describing the minimum necessary requirement for social sustainability (Ny et al. 2006). Taken together, these principles make up a whole-system valuation of sustainability. They were developed as the product of consensus principally involving scientists, but also hundreds of individuals across sectors ranging from business to government, non-profits, and the general public (Robèrt 2012). The principles, formulated negatively, are value-neutral descriptions of the constraints within which a sustainable society can exist.

A sustainable society as defined in the FSSD and used in conducting this research, is a society in which: “Nature is not subject to systematically increasing:

1. …Concentrations of substances extracted from the Earth's crust;
2. …Concentrations of substances produced by society;
3. …Degradation by physical means; and
   that in society,
4. …People are not subject to conditions that systematically undermine their capacity to meet their needs”. (Ny et al. 2006, 64)

**Strategic level:** Using the Sustainability Principles to guide the formulation of goals, a plan for moving from the current state to the vision of success can be created by asking, ‘From today forward, what can we do to reach our vision of success?’ This strategic approach, called ‘backcasting’, can guide organizations through complex systems with unpredictable futures by focusing on the end goal and taking a proactive approach rather than only reacting to current trends and uncertainties. To aid the process of transitioning strategically towards success, prioritization guidelines ensure that proposed actions are moving in the right direction with respect to the Sustainability Principles, that the action creates stepping stones for future improvements, and that the action provides a sufficient return on investment.

**Actions level:** Employing the aforementioned strategic prioritization process, actions that help to move the global socio-ecological system towards sustainability are selected.
Tools level: At this level, tools are chosen to support the actions in a variety of ways ranging from monitoring to measuring, assessing, analyzing or capacity building.

(Holmberg and Robèrt 2000; Robèrt 2000; Robèrt et al. 2012; Broman et al. 2000)

In addressing sustainability within a system as global and complex in nature as the procurement of agricultural commodities by multinational organizations, it can be difficult to develop an integrated strategy that addresses all vital issues without the possibility for unintentional negative impacts. It is therefore necessary to employ a whole-system approach that relies on a comprehensive and robust definition of sustainability. As demonstrated, the FSSD takes a comprehensive approach to sustainability, one that can address the full spectrum of the potential impacts of the global agricultural system. It has been proven effective for strategic step-by-step decision-making in companies (Nattras 1999), regions and municipalities (James and Lahti 2004) for the assessment of various kinds of tools and concepts for sustainable development in general (Robèrt 2000), as well as for company decision systems (Hallstedt et al. 2010), and has been implemented, for instance, by IKEA, Nike, Electrolux, Max Hamburger, and Scandic Hotels (The Natural Step 2013b).

1.5 Aim

The purpose of this thesis is to support organizations in taking actions that will maximize their procurement of agricultural commodities grown in the most sustainable manner possible. Through the development of recommendations, our thesis is designed to help these organizations take the necessary steps to improve their capacity to purchase these commodities.

1.6 Research Question

How can multinational organizations maximize their procurement of agricultural commodities grown in the most sustainable manner possible?

The following sub-questions aid in answering the above question:

1) What are the ideal practices for multinational organizations that would enable them to maximize their procurement of agricultural commodities grown in the most sustainable manner possible?

2) What is the current state of the procurement of agricultural commodities within surveyed/interviewed organizations, and what gaps need to be overcome to maximize the procurement of agricultural commodities grown in the most sustainable manner possible?
3) What are the best existing practices for maximizing the capacities of these organizations to procure agricultural commodities grown in the most sustainable manner?

4) Based on our results, what recommendations can be made to assist organizations in maximizing their capacity to procure agricultural commodities grown in the most sustainable manner possible?

1.7 Scope and Audience

Our intended primary audience for this thesis is key decision makers who can influence sustainable sourcing practices within multinationals and INGOs. This may include procurers, supply chain managers, sourcing managers, and sustainability managers. Our findings may also be relevant to other organizations that procure agricultural commodities or those working within the field such as consultants, experts, or policy makers. Although it is necessary to acknowledge the main problems with the current global agricultural system and its relationship with multinational corporations and other large procurers of agricultural goods, our intention is that this thesis will be solutions-oriented. The main takeaways will come from the successful aspects of sustainable supply chain practices that have been used and tested by multinational organizations.
2 Methods

To answer the research questions, the study was conducted in the following phases:

- Organizations for potential interviews were identified according to specific criteria of the study;
- Based on FSSD teachings, a theoretical ‘Ideal Case’ was created;
- Information was gathered from semi-structured interviews with organizations and experts, Corporate Social Responsibility (CSR) reports, peer-reviewed articles, and other reports. The information collected was categorized into the levels of the FSSD;
- Using the information above an analysis was conducted on the data and then the data was categorized into ‘Current State’ and ‘Best Existing Practices’; and
- Recommendations were formulated based on the above findings.

2.1 Identifying potential organizations for interviews

For potential interviews, this thesis looked at multinational corporations and INGOs who were: 1) controlling a large share of the trade of one or several agricultural commodities, or in the case of INGOs procured millions of dollars’ worth of commodities per year; and 2) were already taking some measures to incorporate sustainability into their business practices.

A variety of approaches were taken to determine which organizations should be targeted for interviews:

1) Internet searches to determine which multinational corporations met our criteria were conducted using a variety of key words including: sustainable business, sustainable sourcing, sustainable agricultural commodities, and CSR.

2) To prioritize which organizations should be pursued, results from searches were compared to rankings from WWF (Clay 2010) and Oxfam (Hoffman 2013), both of whom have campaigns promoting CSR for multinational corporations who deal heavily in agricultural commodities.
3) Supplier lists from World Food Programme (WFP 2012b) as well as memberships to certification programs, including the Roundtable on Sustainable Palm Oil (RSPO), Roundtable on Sustainable Soy, and Bonsucro, were reviewed for possible contacts.

4) S2 Sustainability Strategies, a Geneva-based sustainability consultancy firm that works with large aid agencies, was contacted to discuss which INGOs might meet the previously mentioned criteria.

5) Exploratory interviews were conducted with individuals at WWF, WFP, Blekinge Institute of Technology (BTH) and other organizations in order to learn more about which organizations were working to incorporate sustainability into their value chains and could serve as potential interviewees.

The final outcome of this process was a list of 70 corporations, five INGOs, and 15 experts. Of this assemblage, four multinational corporations, one INGO, and four experts were willing to cooperate for this study and were interviewed.

2.2 Formation of the ‘Ideal Case’

An ‘Ideal Case’ was developed in order to serve as a benchmark for analyzing and comparing existing procurement practices. In basing this ‘Ideal Case’ on the FSSD, it served as a tool for using the FSSD as an analytical lens. In conducting our analysis, the ‘Ideal Case’ was used to judge and analyze existing practices in comparison to the optimal situation.

The ‘Ideal Case’ was created by synthesizing our knowledge of procurement practices with our knowledge of the FSSD in order to create the ideal answer, from an FSSD perspective, to the questions from the first column of Table 2.2 (Please see Table 2.2 in Section 2.4). The ‘Ideal Case’ was made to be relevant to procurement practices and fully aligned with the FSSD definition of sustainability.

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2 Bonsucro offers a metric-based certification scheme, developed by stakeholders, to foster the sustainability of the sugarcane sector and support continuous improvement for members. Bonsucro is a global platform for sugarcane and its derived products and aims for globally applicable performance-based principles, criteria, indicators and standards for sugarcane production (Bonsucro 2013).
2.3 Interviews with multinational organizations and experts

2.3.1 Interview questions

In order to create questions for interviews, the following information was synthesized in order to develop questions that would deliver the most relevant and useful data:

- The ‘Ideal Case’;
- Findings from the literature review of journal articles, CSR reports, codes of conduct, and publicly available information regarding sourcing practices from multinational organizations;
- Exploratory interviews with individuals at WWF, WFP, and BTH; and
- Thesis group findings from FSSD assessments of two public procurement tools, one farming-related greenhouse gas emissions tool, and the codes of conduct for Walmart and IKEA.

A first draft interview with 30 open-ended questions, allowing for in-depth answers, was brainstormed using the above information. The aim of the interview questions was to ensure the answers given would address the primary research question and sub-questions, and that an analysis of procurement practices through the lens of the FSSD would be possible. A final set of interview questions was then circulated to experts at WWF and BTH, as well as thesis supervisors for feedback and approval.

Interview questions for experts were modified for the purposes of gaining their understanding of existing sourcing practices for agricultural commodities within the identified relevant multinational organizations.

For a better understanding of how interview questions were developed, please see Table 2.2 in Section 2.4. For a complete list of the interview questions, please see Appendix 1.

2.3.2 Interviews

Semi-structured interviews with sustainability managers and heads of procurement from four multinational companies and one INGO were conducted, each lasting roughly one to three hours. Additionally, semi-structured interviews with experts at Bonsucro, Sustainable Food Lab (SFL), WWF, and ECO-Buy lasted each roughly one to two hours.

Descriptions of interviewed organizations
For reasons of confidentiality, acronyms are used to denote and distinguish organizations and citations have not been provided. Information on the organizations is listed below and sourced from the organization's homepage and conducted interviews.

Commodities Trader:

- Commodities Trader (CT), Interviewee: Global Sustainability Manager  
  CT is a global commodity trader and owner of industrial facilities, farms and plantations around the world. Several million tons of commodities are originated, processed and transported by CT, spanning the value chain from the farm level to big corporations and local manufacturers. CT is committed to minimizing environmental impacts and protecting human and labor rights. Its portfolio includes for example oilseeds, grains, palm oil, coffee, and sugar.

Consumer Goods Companies:

- Global Food Company (GFC), Interviewee: Senior Sustainability Manager  
  As one of the leading food manufactures in the world, GFC operates in more than 73 countries. It is committed to leading the industry in sustainability by being the first global company with the goal of sourcing all its cocoa from certified suppliers by 2020.

- Company Y, Interviewee: Global Manager, Sustainable Sourcing  
  Company Y is a large consumer goods company that sources a significant amount of palm oil. It has more than 250 operating companies in almost 80 countries and employs about 130,000 people. Company Y has a long tradition in reporting sustainability. Agricultural commodities procured include palm oil, coconut oil, and soy.

Food Distribution Company:

- Food Distributor (FD), Interviewees: Vice President, Quality Assurance; President, Investor Relations  
  FD is a global food distributor whose customers include more than 365,000 restaurants, hotels, hospitals, schools, and universities. Approximately 51,000 people work for FD's several business groups, which are spread over more than 96 countries. Due to its position in the value chain, FD has influence all the way down on the farm level as well as up on the end consumer. FD's sustainability approach includes organic products, local food, reducing GHG emissions from transports, and volunteer projects for stakeholders.

International Non-Governmental Organization:

- IO, Interviewee: Deputy Director of Procurement  
  The International Organization (IO) is one of the world's largest humanitarian agencies fighting hunger in 75 countries and is funded entirely by voluntary donations. IO's objective is the eradication of hunger and poverty, making food aid no longer necessary
by helping to build assets and by promoting the self-reliance of poor people and communities. IO provides neutral assistance and advice to countries in establishing and managing their own food programs. Due to its purchasing power, IO offers smallholder farmers opportunities to access agricultural markets and aims to improve their lives.

Roundtable:

- **Bonsucro, UK (London), Interviewee: Nicolas Viart, Director of Sustainability**
  Bonsucro offers a metrics-based certification scheme, developed by stakeholders, to foster the sustainability of the sugarcane sector and support continuous improvement for members. Bonsucro aims for globally applicable performance-based principles, criteria, indicators and standards for sugarcane production that take into account local conditions and that are based on a credible and transparent process. Bringing 80 farmers, millers, end-users, intermediaries and nongovernmental organizations (NGOs) around one table, Bonsucro strives to be an internationally accepted global platform for sugarcane and its derived products. There are currently 23 mills certified, and trainings, seminars, and briefings are provided in more than 30 cane-producing countries (Bonsucro 2013).

Experts:

- **Worldwide Fund for Nature (WWF), UK, Interviewee: Duncan Williamson, Senior Food Policy Advisor**
  WWF is the world's leading independent conservation body. It acknowledges the interconnection between people, wildlife and the environment. WWF, a science-based organization, works together with communities, politicians and businesses striving for a world where people live in harmony with nature. WWF is a global network, working in more than 100 countries and providing advice about sustainable business to various companies (WWF UK 2013).

- **Sustainable Food Lab/Cool Farm Institute USA (Vermont), Interviewee: Daniella Malin, Project Manager, Cool Farm Tool**
  The Sustainable Food Lab (SLF) is driven by their mission to accelerate the shift of sustainable food from niche to mainstream. The SFL, a consortium of businesses, nonprofits and public organizations, facilitates market-based solutions for a sustainable food system and creates innovative projects in supply chains. It serves as a platform for strategic partnerships and offers its members tools and support for measuring and implementing sustainability within the members' organizations. One project of the SFL (originally developed by Unilever and the University of Aberdeen) is the Cool Farm Institute, which created the Cool Farm Tool, a greenhouse gas calculator that enables farmers to make more informed farming decisions to reduce their carbon footprint (SFL 2013).
- ECO-Buy Australia (Melbourne), Interviewee: Lilli McCubbin, Sustainable Procurement Consultant

ECO-Buy provides advice and expertise to organizations on implementing sustainable procurement and building green supply chains. It is a non-profit organization and offers services to enable organizations to make sustainable procurement “business as usual”. These services include access to a network of leading organizations, research and trainings, events, and a knowledge hub (ECO-Buy 2013).

The following figure shows relationships and interconnections between the interviewed organizations. The farm level (left) and the consumer level (right) are represented by two rectangles. Interviewed multinational organizations along the supply chain that procure large amounts of agricultural commodities are figured as hexagons. The Commodities Trader (CT) procures commodities from the mills or directly from the farmers, and organizations like the Global Food Company (GFC), Company Y, International Organization (IO), and the Food Distributor (FD) procure from CT. IO also procures directly from the farmers. The circles represent the organizations of the experts that we interviewed. Arrows show the cooperation between these experts and the interviewed organizations. For instance, roundtables certify suppliers at the farm level and work together with all the interviewed multinational organizations. WWF and SFL both work closely with companies and, in the case of SFL, with farmers. WWF cooperates with all our interviewed organizations. The procurement consultancy ECO-Buy has no direct cooperation with any of our interviewed organizations but gives advice to both, public and private procurers.
For optimizing results gained from interviews, the following actions were taken:

- A pre-interview test was conducted with an expert to test the depth of the questions, highlight any gaps or missing information, and to measure timing and get external feedback;

- All interview questions were sent to the interviewees at least 72 hours in advance to allow time for them to prepare and make clarifications;

- Interviews were conducted over the telephone or using Skype with at least two members of the thesis team present for all interviews; and

- Notes from the interviews were taken by at least one, or in most of the cases, two group members. Additionally, calls were recorded to serve as a reference point to aid in validity and to transcribe interviewees' quotes and relevant data.

Due to the scope of this thesis, interviewees were asked to focus on the agricultural commodities that meet the definition used in this thesis and have the biggest environmental
and social impacts at the farm level. Thus, the commodities mainly addressed by the interviewees were: palm oil, sugarcane, coffee, cotton, citrus, rice, cereals, cocoa, wheat, and maize.

### 2.4 Data analysis

A qualitative analysis of the procurement practices of the interviewed companies and the INGO, as well as data collected from aforementioned reports, was completed using the FSSD as an analytical lens. This included a gap analysis between existing practices and an ‘Ideal Case’ informed by the FSSD.

The following actions were taken in order to analyze the gathered information:

- Based on the recorded interviews, answers to questions were summarized and combined with notes taken during the interview, and relevant key quotes were extracted. Each team member did this independently for every interview, to ensure accuracy.

- Coding information:
  - Quotes, summarized answers from each interview, and data from reports were categorized independently by each team member into an Excel spreadsheet according to the levels of the FSSD.
  - Codes corresponding to different levels within the FSSD were identified after analyzing the interview answers. Some data was put into multiple levels when coded information was relevant at multiple levels. Examples of codes are listed in the following table.

Table 2.1 Examples of codes used for classifying data from interviews into the levels of the FSSD.

<table>
<thead>
<tr>
<th>FSSD LEVELS</th>
<th>EXAMPLES OF CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYSTEM</td>
<td>Stakeholders, supply chain, future availability, partner organization, traceability/transparency, farm level</td>
</tr>
<tr>
<td>SUCCESS</td>
<td>Sustainability related goals, definition of sustainability, roundtable standards</td>
</tr>
<tr>
<td>STRATEGIC</td>
<td>Decision-making criteria, sustainability guidelines, prioritizing, ‘backcasting’ from success</td>
</tr>
<tr>
<td>ACTIONS AND TOOLS</td>
<td>Names of specific tools, initiatives, certification schemes, roundtables, standards, codes of conduct</td>
</tr>
</tbody>
</table>
Formulation of ‘Current State’ and ‘Best Existing Practices’:

Having already developed the ‘Ideal Case’ for each level of the FSSD, we analyzed the data within each level to determine which would be classified under the ‘Current State’ and which would be classified as ‘Best Existing Practices’. In determining what constitutes a ‘Best Existing Practice’, we analyzed the various practices to determine which deviated the least from the ‘Ideal Case’, and which might serve as potential solutions for bridging the gap to the ‘Ideal Case’. The ‘Current State’ sections seek to explain the current state of procurement of agricultural commodities and the substantial gaps that need to be overcome to reach the ‘Ideal Case’. In determining what to classify within the ‘Current State’ we analyzed the data to determine which practices deviate most significantly from the ‘Ideal Case’, as well as practices that describe the current state of procurement but do not offer potential solutions for bridging the gap.

The following table shows examples of the questions answered at each level of the FSSD in order to gain the necessary data for our analysis. The left column shows guiding questions used to aid in the development of the ‘Ideal Case’, as well as to develop our actual interview questions and categorize responses. The right column shows examples of actual interview questions used to gain the procurement-specific data analyzed in the Results section.

Table 2.2. Sample questions used for gaining the necessary data at the levels of the FSSD.

<table>
<thead>
<tr>
<th>FSSD LEVELS</th>
<th>COLLECTED AND CATEGORIZED DATA</th>
<th>INTERVIEW QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYSTEM</td>
<td>What do current practices indicate about organizations’ boundaries to the environment and society?</td>
<td>Do you see the procurement of agricultural commodities as something that could influence global sustainability?</td>
</tr>
<tr>
<td></td>
<td>What assumptions are explicitly made about the system and what do current practices indicate about how the organization defines the system?</td>
<td>What policies do you have on the traceability of the agricultural commodities you purchase?</td>
</tr>
<tr>
<td></td>
<td>What actions are taken to help decision makers understand more about stakeholders and the role in the socio-ecological system?</td>
<td>What partnerships (if any) do you have with sustainability organizations?</td>
</tr>
<tr>
<td></td>
<td>Does the organization understand and measure the impacts of its procurement practices on the socio-ecological system?</td>
<td>Does your organization communicate with/teach farmers, so that they can meet the demand for sustainably grown goods?</td>
</tr>
</tbody>
</table>
Do the organizations have clear, measurable definitions of what constitutes a sustainably grown commodity?  
Do these definitions cover the full scope of sustainability i.e. the Sustainability Principles?  
Does the organization have clear goals outlining its vision for procuring more sustainably grown agricultural commodities?  
Does your organization/department have a definition of sustainability?  
Does your organization have a definition of sustainable procurement?  
What labeling/certifications does your organization work with? Are the standards high enough (in general and according to your definition of sustainability)?  
What do you consider to be a successful procurement process?

<table>
<thead>
<tr>
<th>STRATEGIC</th>
<th>ACTIONs AND TOOLS</th>
</tr>
</thead>
</table>
| Does the organization employ a ‘backcasting’ approach? | How do you prioritize the factors influencing your procurement process factors (for instance: future availability, price, consumer demand for sustainable products, law, price, taxes)?  
| Does the organization offer any guidelines or prioritization processes for making procurement decisions or vetting potential suppliers? | Do you have decision-making criteria for selecting suppliers?  
| How is sustainability prioritized in these guidelines? | |  

<table>
<thead>
<tr>
<th>ACTIONS AND TOOLS</th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| How do current tools intended to improve organizations’ capacities to procure more sustainably grown agricultural commodities actually serve their intended purpose? | Do you use a specific tool, framework or methodology in your procurement process?  
| How well do they help organizations move toward the ‘Ideal Case’ at the System, Success, and Strategic Levels? | What labeling/certifications does your organization work with?  
| | What are you doing to incorporate environmental and social sustainability into your procurement process? |

(Adapted from Blekinge Tekniska Högskola 2012)

### 2.5 Recommendations

Recommendations for strategic actions that multinational organizations could take to improve their capacity to procure more sustainably grown agricultural commodities were developed based on a synthesis of all of the analyzed data. The ‘Best Existing Practices’ were examined to determine how they could be combined with other actions or improved upon to bridge the gap to the ‘Ideal Case’. Moreover, logical inference was employed to determine what actions could be taken to make improvements on practices in the ‘Current State’. The
recommendations were sent to the interviewees at all the multinational organizations as well as the expert interviewees for feedback on how appropriate, applicable or feasible these recommendations were.

2.6 Data Validity

The following steps were taken in attempt to ensure the validity of the results:

- Several methods for data collection including exploratory interviews, interviews with multinational corporations and an INGO, as well as desk research were used. Further expanding the depth of the research, experts holding different standpoints and positions from various countries were targeted for interviews in order to improve the quality of data collected;
- Significant time was spent targeting people that were expected to deliver reliable and reputable answers. Thus only persons experienced in that field, connected to related and impactful projects and organizations were interviewed;
- Feedback by experts as well as our thesis advisor was incorporated into interview questions in order to reduce possible leading questions;
- All interviews were recorded to enhance accuracy of our data collection process.
- Transcribing, analyzing, and interpreting data was conducted by all the three thesis group members in order to deliver objective results;
- Results were compared to other research projects (e.g. projects and past Master in Strategic Leadership towards Sustainability theses on similar topics) as well as academic articles;
- Results were circulated back to all interviewees for purposes of verifying that all quotes were correct and that all information was used in the proper context; and
- Recommendations were sent to the interviewees for purposes of gaining feedback for improvement, as well as to ensure applicability to the organizations.
3 Results

3.1 System

3.1.1 ‘Ideal Case’

At the system level, the ideal procurement process should take a whole systems perspective, influenced by its role in the global agricultural system, within society and within the biosphere. Impacts of the procurement process should be assessed across the entire socio-ecological system and consider all stakeholders. Recognition of the responsibility for and influence on the global agricultural system and food security should extend throughout the entire value chain, and the power of using procurement to leverage sustainability should be considered. The process should take a long-term perspective on issues such as soil productivity, resource use and availability, and the future availability of agriculture commodities.

3.1.2 ‘Current State’

Our research indicates that there are currently varying degrees to which organizations are aware of the full scope of influence of their sourcing practices for agricultural commodities. While there are practices displaying organizations’ full cognizance of their role in the socio-ecological system and their ability to influence the sustainability challenge, these practices are often not applied organization-wide or to all of the agricultural commodities procured. Though we did not find any organizations with a specific definition of the ‘system’, we were able to logically infer organizations’ perspectives based on their practices.

Our research found differing viewpoints on how procurement can affect ecological sustainability. For instance, IO does not directly address ecological sustainability in its purchasing decisions as they feel it falls outside the scope of their organization: “Our objective is feeding people” (IO 2013). However, IO did state the following: “We certainly recognize our responsibility in contributing to more sustainable patterns of development, maintaining a market behavior which is credible, inspirational and exemplary, thus demonstrating that we stand behind the principles which we promote as an organization.” (IO 2013) CT, while lacking a comprehensive, whole-systems perspective (as addressed later in this section) has taken a variety of actions that demonstrate the organization’s understanding of the sustainability challenge with regard to ecological sustainability. These practices, however, are applied only to certain commodities in certain regions of the world (IO 2013). The same could be said of both Company Y and GFC, both of which have taken significant actions indicating an understanding of the sustainability challenge, but neither of which consistently apply these actions across their companies and the agricultural commodities they purchase (Company Y 2013; GFC 2013).

The ability of a buyer to trace a commodity back to its source is partially indicative of the degree to which a company is capable of influencing how the commodities are grown, while
also demonstrating what they include within their realm of responsibility as an organization. At CT, there are varying degrees to which commodities are traceable. In certain scenarios, like when purchasing Bonsucro certified sugar in Brazil, the commodity is often 100% traceable and documented, except when a ‘mass balance’ system is used to avoid the inefficiencies of segregating certified commodities in storage, transportation and processing (CT 2013). This same ‘mass balance’ scenario applies to certified commodities purchased by GFC (GFC 2013).

In other scenarios, like when purchasing rice in Southeast Asia from a local trader who amalgamates rice from various small farmers, the product is not traceable to its source (CT 2013). In this latter scenario, the company’s realm of responsibility begins with the boat onto which the rice is loaded. In this regard, the company’s role in the system is limited by what they know.

The traceability issue is an obvious gap between the ‘Current State’ and the ‘Ideal Case’. The inability of procurers to trace agricultural commodities back to their sources prevents them from knowing the full scope of the system in which they are operating and the far-reaching influences of their procurement practice. If CT, for instance, is unable to trace their rice beyond the boat that shipped it out of Southeast Asia, one can logically infer that they would have limited capacity to demand more sustainably grown rice from the farmer that grew it. In none of the organizations interviewed did we find a specific policy relating to the traceability of any given commodity, but we also learned that when roundtable certified commodities are purchased, traceability becomes unnecessary and inefficient due to the need to segregate commodities based on their origin (GFC 2013). The additional efforts and costs required to segregate commodities in transportation and storage can make the system inefficient. “The challenge is doing it in a way that minimizes supply chain inefficiencies. Nobody wins if there are inefficiencies in the supply chain” (GFC 2013). GFC cannot always trace their certified cocoa back to the farmer, who might grow only one ton of cocoa per year. In this scenario, “the cost of segregating would not outweigh the benefit” (GFC 2013).

For commodities not certified by any sustainability-related certification scheme or roundtable, the lack of traceability is problematic. According to GFC, “We need to understand what our supply chains look like. If we have increased visibility across the entire supply chain, we will have better control. More information will provide stronger platforms for more constructive conversations on how to best decrease any unsustainable social or environmental practices across the entire supply chains, not just our tier one suppliers.” (2013)

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3According to De Man and Ionescu-Somers, there are three alternative supply chain options: 1) segregated, 2) mass balance and 3) book and claim. 1) The segregation approach requires that the certified commodities are kept separate from non-certified commodities at every stage of production, processing, refining and manufacturing throughout the supply chain. 2) The basis of the supply chain requirements for mass balance consists of reconciliation between quantity of commodities bought and the quantity of certified commodities sold. This includes control of purchases and sales of certified commodities and their derivatives which will be independently verified. There will be no requirements for separate storing or controls in the production process. 3) Volume credits can only be introduced into the system by certified mills and their supply base up to the annual output of the certification unit. Volume credits are traded electronically directly to end users. These requirements are designed to ensure that the commodity and/or its byproducts that are claimed to be sustainable under this supply chain are covered by certificates (2013).
With regard to the social impact of some of the world’s largest companies’ procurement practices for agricultural commodities, we found a variety of places where companies have a limited perspective. For instance, of the ten largest food and beverage companies in the world, none gathers or publishes any data regarding the number of women working in their supply chains or the working conditions that they face, nor have they made any commitments to overcoming the issue of discrimination against women in their supply chains (Oxfam 2013). This is indicative of a limited view of their scope of influence, especially in regards to social issues.

A company’s perspective on the future availability of a product can indicate how the company sees their role within the socio-ecological system and their understanding of the sustainability challenge. According to CT, the future availability of a particular commodity only impacts purchasing decisions in the short term, and these decisions are made on the basis of supply and demand. If, for instance, there were a commodity with high demand but short supply, this would impact how CT purchases this commodity. The view of future availability, however, does not extend beyond the immediate future (CT 2013). By participating in commodity roundtables or purchasing a roundtable-certified commodity, however, an organization may be indirectly taking long-term availability into consideration. Bonsucro for instance, bases their standards around long-term soil productivity and other factors influencing future availability (Viart 2013). There is an obvious gap between the present state and the ‘Ideal Case’ when CT only considers the future availability of agricultural commodities with regard to how it affects near-term buying decisions. This demonstrates a lack of understanding of the sustainability challenge, especially with regard to declining resources and soil productivity, as well as increasing demand. Of the organizations we interviewed, CT is the only company that views issues of future availability with a perspective as short-term as this (please see Section 3.1.3 for more on future availability), which may be a result of its role as a commodities trader, as it does not create its own demand for sustainably grown commodities, but rather reacts to the needs of customers down the supply chain.

### 3.1.3 ‘Best Existing Practices’

One ‘Best Existing Practice’ that we found that helps to minimize the gap between the ‘Ideal Case’ and the ‘Current State’ at the system level is strong stakeholder engagement. At a minimum, these levels of engagement with stakeholders indicate recognition of the various players in the system, along with an understanding of their desires, demands, and their views on the sustainability challenge. As previously mentioned, we see this in processes for developing commodity roundtables, as well as for purposes of improving practices through cooperation with organizations like WWF. According to GFC, “We engage with NGOs: [We have a] longstanding relationship with WWF. We work with a multitude of other organizations to ensure that we are building capacity at farm level for oil palm farmers.” (2013) This engagement shows a willingness to understand who and what procurement practices are impacting, contributing to a broadened perspective of the system in which they operate. Of the
organizations that we studied, CT, Company Y, and GFC all participate in several commodity roundtables, including RSPO, which is the one roundtable in which IO participates (CT 2013; Company Y 2013; GFC 2013; IO 2013). Roundtable certifications are developed through processes that include the input of various stakeholders surrounding the crop for which standards are being discussed. While FD does not participate in commodity roundtables, they regularly engage their suppliers in dialogues about sustainability issues: “One of the opportunities is to have a better, more comprehensive conversation around the validity, science based standards; to talk about something that is moving the industry in the right direction. It’s good to have these conversations, so that we are always sure about what we’re doing.” (FD 2013). Other forms of engagement include cooperating with environmental organizations for strategic advice. CT works with organizations like WWF, Solidaridad, and various smaller NGOs at a local level in order to improve environmental and social practices throughout the supply chain (CT 2013). GFC and FD both work with WWF, while Company Y works with both WWF and Greenpeace (Company Y 2013; GFC 2013; FD 2013). The WWF has partnerships with many of the world’s largest companies like PepsiCo, Nestle, Mars, and Kraft among others, specifically for purposes of improving their ability to purchase more sustainably grown commodities (Williamson 2013).

In conducting our interviews we found a variety of practices and initiatives that indicate a clear awareness of the far-reaching influence of sourcing practices within the socio-ecological system. This includes local initiatives in developing countries where commodities are grown, which are aimed at improving quality of life and agricultural productivity. Examples of this include CT’s initiatives with smallholder farmers in Africa, GFC’s technology transfer centers and education initiatives, as well as Company Y’s initiatives in Indonesia aimed at improving the productivity of palm growers (CT 2013; GFC 2013; Company Y 2013). CT recognizes the influence that they have on the 165,000 smallholder cotton farmers in Africa, and has initiatives in place that provide local-level assistance to farmers in a variety of ways, ranging from agricultural education for yield improvement to HIV and AIDS education (CT 2013). IO recognizes its ability to influence local economies and quality of life through its procurement practices, which is why it buys as much as 86% of its food in developing countries (IO 2013). This demonstrates a keen awareness of the potential social and economic impacts of purchasing decisions. While these are all positive initiatives, we found that the agricultural education initiatives are largely focused on yield improvement and economic development, neither of which necessarily specifies environmental sustainability.

The most promising perspectives on the future availability of commodities come from GFC, which demonstrates a strong understanding of issues relating to the future availability of the commodities on which it relies. GFC claims that the single most important incentive to procure more sustainably grown agricultural commodities is future availability. In 2020, they project that the supply of cocoa will fall short of demand by one million tons, creating a clear incentive to push for more sustainable and productive farming practices (GFC 2013). “We were looking at the cocoa supply and cocoa demand. We actually forecasted a one million ton shortfall in cocoa supply to demand by 2020. That’s a fairly compelling business case to do something. Yields are low, so there is the ability to grow yield and provide farmers with more income
without deforestation. There’s a social benefit, an environmental benefit, and a financial benefit.” (GFC 2013) GFC’s long-term assessments of supply and demand indicate an understanding of the long-term issues of the sustainability challenge, “We’re very much focused on this future availability piece. We are willing to invest today to ensure future supply, unequivocally” (GFC 2013). Company Y also claimed future availability was the leading factor influencing its desire to procure more sustainably grown agricultural commodities:

Today we use the natural capital of one and a third planets. Going forward, looking at population, growing middle classes…we’re going to see huge issues around these agricultural commodities for food, and not even taking into consideration the reliance that organizations like ours have on them as feedstocks for the materials we buy or biofuels as an example. There are two aspects here: first and foremost the responsibility to do this in a right way so it’s sustainable for future generations, but also the longevity of organizations like [Company Y]. If we don’t have access to water, if we don’t have access to energy, if we don’t have access to agricultural commodities, the business won’t survive. The important part here is to make sure there’s enough here for the general population. But don’t lose sight of the fact, given the way organizations need and have a reliance on these commodities, on water, on energy for example. If it’s not there then we simply won’t have a business in the future. (Company Y 2013)

FD also demonstrates the need for a long-term approach by requiring suppliers to adhere to specific farming requirements that support future availability. “One of the most important things is to try to encourage these practices so that we are going to have suppliers for the long term. In doing so, we have confidence that they are managing the resource in the manner that will help them sustain and keep them as viable supply sources as we move into the future.” (FD 2013) These perspectives on future availability are a strong indication that these organizations understand the system within which they operate, as well as the long-term impacts of the sustainability challenge. The following figure summarizes the results for the 'Ideal Case', the 'Current State', and 'Best Existing Practices' at the system level.

<table>
<thead>
<tr>
<th>System Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal Case</td>
</tr>
<tr>
<td>- Whole systems perspective</td>
</tr>
<tr>
<td>- Comprehensive impact assessments</td>
</tr>
<tr>
<td>- Stakeholder engagement</td>
</tr>
<tr>
<td>- Long-term view</td>
</tr>
<tr>
<td>Current State</td>
</tr>
<tr>
<td>- Potential for whole systems perspective</td>
</tr>
<tr>
<td>- Limited understanding of the sustainability challenge</td>
</tr>
<tr>
<td>- Desire for better traceability</td>
</tr>
<tr>
<td>- Small steps being taken to integrate sustainability into procurement practices</td>
</tr>
<tr>
<td>Best Existing Practices</td>
</tr>
<tr>
<td>- Consideration of future availability</td>
</tr>
<tr>
<td>- Recognition of the importance of transparency</td>
</tr>
<tr>
<td>- Roundtable participation</td>
</tr>
<tr>
<td>- Cooperation with organizations</td>
</tr>
<tr>
<td>- Realm of responsibility extended to the farm level</td>
</tr>
</tbody>
</table>

Figure 3.1 Summarized results for the ‘Ideal Case’, ‘Current State’, and ‘Best Existing Practices’ at the system level.
3.2 Success Level

3.2.1 'Ideal Case'

The vision of a successful procurement process should be one in which procured agricultural commodities are grown in alignment with the Sustainability Principles. The definition of success should be comprehensive and include robust standards for what constitutes a sustainably grown agricultural commodity. An ideal definition would include both farming methods as well as specific metrics defining the appropriate usage of resources. An organization’s vision of successful procurement should outline clear long-term goals for maximizing purchases of agricultural commodities meeting the organization’s definition of success. Additionally, organizations’ definitions of sustainability should go beyond value statements and describe actual conditions under which the organization would be sustainable.

3.2.2 'Current State'

Our findings show that organizations vary in their definitions of sustainability and standards for what constitutes a sustainably grown commodity. Moreover, we found limited evidence of organizations defining success in terms of long or short-term goals for how much of a sustainably grown commodity (however it is defined) they want to purchase. There is a clear gap between the ‘Current State’ and the ‘Ideal Case’ when it comes to how organizations define sustainability. While most organizations had some form of a definition of sustainability, none were robust. As compared to the ‘Ideal Case’, the organizations had definitions of sustainability that are value statements, as opposed to being scientifically based. The latter allows you to aim towards operating within clear and systematic boundaries of the planet and society, as well as to measure to progress towards full compliance. IO, for instance, does not have a definition of sustainability (IO 2013). CT has a definition of sustainability, but its applicability is extremely limited as it merely states that sustainability encompasses “social development, economic growth, and environmental protection” (CT 2013). Company Y has a similar problem, as does FD, which defines sustainability as “Food, Operations, Community” (FD 2013). None of these definitions indicates a concrete and quantifiable state at which they would be sustainable, making their definitions difficult to apply.

The lack of a concrete definition also prevents organizations from employing ‘backcasting’ as a strategy to reach their definitions of sustainability. IO’s lack of well-defined goals relating to ecological sustainability or direct intentional integration of ecological sustainability into procurement systems is an indication of a limited systems perspective. While some of their purchasing practices may have positive social benefits and indirect ecological benefits, they do not have a defined position on ecological sustainability (IO 2013).

According to Nicolas Viart, Head of Sustainability at Bonsucro, most companies will defer to the roundtable standards as their definition of a sustainably grown commodity. He also
indicated that companies usually do not create a definition that exceeds the roundtable standards in terms of strictness or sustainability (Viart 2013). However, it is important to reiterate that roundtable standards have varying definitions of sustainability, and none that we found in our research are in complete alignment with the Sustainability Principles. According to GFC, “Certification is not always the answer. The answer is we want sustainable raw material. For our work with the peanut industry, for instance, we feel like we are achieving what we want without certification. We are not always going to certify.” (GFC 2013)

The fact that many organizations lack internal definitions of what constitutes a sustainably grown commodity is problematic from an FSSD perspective. Deferral to roundtable standards for defining what constitutes a sustainably grown commodity can be positive in that it provides organizations with a definition that they may not otherwise have. However, organizations should also have definitions to apply their own standards to farmers that do not abide by a specific certification scheme. Currently only 2.7% of the world’s land cultivated for sugarcane falls under Bonsucro standards (Viart 2013), so it is problematic that procurers do not have their own sustainability standards to use in vetting potential sugar suppliers until the Bonsucro standards are more widely adopted. For a variety of other commodities, including citrus and cocoa, there is no roundtable standard defining a sustainably grown commodity (CT 2013). In the case of CT, for instance, they do not have their own definition of sustainably grown cocoa to compensate for the lack of a roundtable certification (CT 2013).

At CT, there is no formal process for vetting farmers from whom they buy, except, for instance, when the commodity they are purchasing has already been certified by a roundtable. Outside of any formalized selection process, various factors define success for CT in terms of the farmers that they contract, including proven performance, environmental standards (with no clear criteria defining this), and reputation for quality and performance (CT 2013).

Legal compliance and adherence to international norms is one definition of success that we found in conducting our interviews. All organizations interviewed listed legal compliance and the avoidance of fines due to corrupt practices as very important. Success might also be defined as avoiding risk to reputation, which includes abiding by the law (CT 2013).

3.2.3 ‘Best Existing Practices’

At the success level, the creation of long-term goals for the procurement of sustainably grown commodities is essential to bridging the gap between the ‘Ideal Case’ and the ‘Current State’, as it allows organizations to plan with the end goal in mind or use ‘backcasting’ at the strategic level. GFC in particular stood out with goals for 100% sustainable sourcing for at least six of the commodities it purchases, and a commitment to purchasing 100% certified cocoa by 2020 (GFC 2013). Moreover, FD has requirements in place that call for 100% of their canned and frozen fruits and vegetables be sourced from farms that adhere to their standards for integrated pest management, which limits the amounts of pesticides and chemicals used on fields (FD 2013). Our research also came across other commitments to sustainable sourcing, including
Unilever’s pledge to 100% sustainable sourcing of all its main commodities by 2020 (Hoffman 2013). While it is positive that these organizations have goals in place, it is problematic that their definitions of sustainability are not in alignment with the Sustainability Principles.

The use of roundtable standards to define what constitutes a sustainably grown commodity is a step in the right direction, provided that this definition falls in line with the Sustainability Principles or is consistently improving to become better aligned with the Sustainability Principles. In the case of the Bonsuco standards, all four Sustainability Principles are indirectly addressed, and various other social, legal and economic standards are used. Another key aspect of the Bonsuco standards is the metrics, which aid in giving clarity to the definition of what constitutes sustainably grown sugarcane (Viart 2013). (Please see Section 3.4)

Another ‘Best Existing Practice’ that we identified, is the use of company codes of conduct. Such standards are employed by GFC and CT, as well as Company Y’s similarly described minimum standards, by which the companies expect their suppliers to abide (CT 2013; GFC 2013; Company Y 2013). The code of conduct for CT outlines policies regarding workers’ rights and various other social sustainability-related issues (CT 2013). The following figure summarizes the results for the 'Ideal Case', the 'Current State', and 'Best Existing Practices' at the success level.

<table>
<thead>
<tr>
<th>Success Level</th>
<th>Ideal Case</th>
<th>Current State</th>
<th>Best Existing Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal Case</td>
<td>• Agricultural commodities grown in alignment with the SPs</td>
<td>• Definition of success focused on avoiding risk (e.g. reputation, abiding by the law)</td>
<td>• Goals of sourcing 100% certified commodity by a certain date</td>
</tr>
<tr>
<td></td>
<td>• Organization's definition of success based on SPs</td>
<td>• Lack of shared and comprehensive definition of sustainably grown commodities</td>
<td>• Roundtable definition for sustainably grown commodity</td>
</tr>
<tr>
<td></td>
<td>• Long-term goals in alignment with SPs</td>
<td>• Potential for clear long-term goals related to sustainability</td>
<td>• Unifying and broadly accepted certifications</td>
</tr>
<tr>
<td></td>
<td>• Clear metrics that quantify what constitutes sustainability grown commodities</td>
<td>• Definition of sustainability focused on increased efficiency</td>
<td>• Success is maintaining business in the future</td>
</tr>
</tbody>
</table>

Figure 3.2 Summarized results for the 'Ideal Case', 'Current State', and 'Best Existing Practices' at the success level.
3.3 Strategic Level

3.3.1 ‘Ideal Case’

At the strategic level, organizations should have clear guidelines that strategically prioritize sustainability within procurement systems. Procurement processes should ‘backcast’ from the definition of success outlined at the success level, and the guidelines should be applied to all agricultural commodities procured by an organization. These clear prioritization guidelines should be used to address all actions surrounding the procurement of an agricultural commodity, including purchasing decisions, selection of suppliers, and the development of initiatives attempting to maximize an organization’s ability to purchase the most sustainably grown commodities possible. At a minimum, these guidelines should include the following questions:

1) Does this action move the organization in the right direction towards the organization’s vision of successful procurement process (as elaborated on at the success level)?
2) Is this action a flexible platform from which further actions can be taken that lead to procuring more commodities grown in the most sustainable manner possible?
3) Does this action provide an adequate return on investment, in order to allow for future initiatives to get even closer to the organization’s vision/goals (as elaborated on at the success level)?

3.3.2 ‘Current State’

Our results indicate that the single most important factor guiding procurement decisions across all organizations is price. While we did find that a variety of other factors come into play when making decisions in the procurement system, we did not find a process that uses a specific tool or formalized guidelines for prioritizing the factors. When making purchasing decisions, buyers weigh the various factors and make business decisions. When the farmer finds the offered price attractive, the procurers buy. This is an age-old method of procuring (CT 2013). According to the interviewee at CT, price is “the main factor that we consider when making procurement decisions” (CT 2013).

When analyzing procurement processes at the strategic level, we address the act of buying an agricultural commodity as a potential action that could be guided by strategic prioritization guidelines. The lack of strategic goals defining how much of a sustainably grown commodity (by whatever definition) an organization should buy is problematic, as it prevents organizations from moving toward targets that would define their success. CT does not have specific targets influencing purchasing decisions, as they purchase certified commodities only in reaction to client demand (CT 2013). GFC has set goals for at least six of the commodities that it procures, but has not set goals for the remainder (GFC 2013). IO does not have any targets (IO 2013).

Purchasing decisions are often influenced by a combination of the following factors:
• Price;
• Quality;
• Legal compliance;
• Food safety;
• Innovation;
• Meeting customer demands;
• Managing reputational risk;
• Location;
• Transport cost;
• Delivery times;
• Proven performance of the producer; and
• Environmental reputation of the producer.

(CT 2013; IO 2013; GFC 2013; Company Y 2013)

The decision-making process at IO, for instance, includes aiming to get the best value for the organization based on delivery times, transport cost, and price (IO 2013). Though IO does not have a definition of sustainability or any related goals, its objective is meet the food needs of those they service and its policy is to “buy food as close to where it is needed as possible” (IO 2013). By buying locally, IO aims to save time as well as money on transport costs while helping to sustain local economies (IO 2013). Therefore, measures that it identified that help prioritize actions in its procurement process are: location, time, and price. According to the interviewee at IO, “IO prioritizes time ahead of price, as it often needs to provide food in emergency situations” (2013).

Only one of the organizations interviewed (GFC) had sustainability integrated into the procurement process as a formalized policy or guideline that might influence procurement decisions (please see Section 3.3.3 for more information on GFC’s protocols) (GFC 2013). While CT mentioned that there was always a “lookout” for farmers with poor environmental records, “there are no policies or factors forcing [CT’s procurers] to buy commodities of a certain certification” (CT 2013). According to IO, “We don’t have an overarching objective on sustainable procurement when talking about food procurement” (2013).

The fact that price is the predominant prioritization factor in procurement processes for multinational companies is not surprising given the free markets within which buyers operate. From an FSSD perspective, the main problem with this system is the lack of prioritization guidelines influencing how buyers might make purchases based on whether or not the commodity was grown in a sustainable manner.

All of the organizations interviewed have decision-making policies in place that require them to work with suppliers who maintain legality by not using child labor (IO 2013; Company Y 2013; CT 2013; GFC 2013) and IO does not do business with suppliers flagged on the international terrorist list (IO 2013). However there is very little guidance on how to prioritize criteria such as social or environmental practices. Neither CT, nor IO has clear guidelines that
define how environmental or social sustainability criteria should be prioritized in making procurement decisions (CT 2013; IO 2013). According to the interviewee at CT, “It’s less of a criteria and more of a case by case basis” (2013).

The development of long-term strategic goals at the success level, though limited, indicates that organizations are, at least to a small degree, using ‘backcasting’ as a strategy. However, our interviews indicated a much more reactionary approach to addressing sustainability within procurement systems. The lack of ‘backcasting’ as a strategy can likely be accredited to the lack of a long-term vision for sustainable procurement at the success level.

3.3.3 ‘Best Existing Practices’

Our research found a limited number of practices at the strategic level that are helpful in moving procurement systems toward the ‘Ideal Case’.

GFC’s internally developed “sourcing protocol” represents a positive step toward reaching the ‘Ideal Case’. While the tool is mainly focused on gathering the appropriate information to make informed business decisions, sustainability-related information is one of the requirements, along with other factors like price, legal adherence, quality, and food safety (GFC 2013). According to GFC, “Once we decide to have a long-term goal, it is always 100% and we have interim metrics for where we want to go” (2013). However, the tool does not provide a response or solution to weighing the various factors, and synthesizing the information necessary to make an informed decision and ultimately the responsibility falls to the procurer, who may receive input from a sustainability manager. According to the representative of GFC, “It’s a business decision, and we have to make tradeoffs like any other business decision” (2013).

Company Y also incorporates some level of strategic maneuvering towards its sustainability related goals. The interviewee stated the following regarding strategic guidelines in the procurement process:

As we’re moving forward we’ve designed a set of guiding principles for responsible sourcing of natural ingredients or agricultural commodities. We have four pillars within that, that we will expect our suppliers to comply with--so a set of guiding principles. And then underneath those guiding principles will fall a set of specific procurement guidelines for each of those commodities. Whereby we’d be a bit more descriptive and a bit more rigorous in our expectations how we expect our suppliers to procure these from their supply chain partners upstream. (Company Y 2013)

Though IO does not include sustainability criteria regarding how a crop is grown among its goals or objectives, by prioritizing the purchase of food grown locally in developing countries, it is reducing transportation-related violations of the Sustainability Principles and contributing to people’s ability to meet their needs. The interviewee of IO stated, “Our biggest contribution to sustainability is local and regional procurement which is 86%. We don’t ship food across
the world; only if we have to.” (2013) The following figure summarizes the results for the 'Ideal Case', the 'Current State', and 'Best Existing Practices' at the strategic level.

![Table showing strategic level comparison](image)

*Figure 3.3 Summarized results for the ‘Ideal Case’, ‘Current State’, and ‘Best Existing Practices’ at the strategic level.*

### 3.4 Actions and Tools

#### 3.4.1 'Ideal Case'

Actions and tools in the procurement process should be selected based on all criteria mentioned in strategic level to move the organization towards the ideal vision of success and ultimately move the global agricultural system, and in turn the socio-ecological system, towards sustainability. It is not possible to specify ideal actions and tools, as these are contextual; actions and tools will vary according the situations present for any particular organization at each point in time.

#### 3.4.2 'Current State'

*Codes of Conduct*

We found that GFC, CT, and Company Y employ codes of conduct, and each expects their suppliers to comply by their codes (GFC 2013; Company Y 2013; CT 2013). At Company Y, if a supplier is found to not be complying with their code, an action plan is put into place to ensure that their practices improve (Company Y 2013). Additional codes of conduct include the IWAY from IKEA, and the H&M Full Audit Programme (Björklund 2010).
Published supplier manuals and codes of conduct are supporting tools for communicating efforts on integrating sustainability into the procurement process. Company Y uses a third party audit to assess and confirm that suppliers comply with the Company Y standards. The result is reported back to a dashboard showing existing risks and their location. If there is a high risk for Company Y, business with this supplier is disrupted, which forces its suppliers to obey Company Y's guidelines (Company Y 2013). In order to guarantee that suppliers are operating in alignment with the organization's goals, Company Y “insure[s] that tier one suppliers are fully aware of [Company Y's] responsible standards for suppliers and responsible sourcing standards of these commodities” (2013).

Supporting farmers and providing assistance in abiding by organization standards fosters commitment to the codes of conduct and helps the organizations to achieve their goals. According to Malin of SFL, some of the multinational companies do a good job in communicating their supplier requirements, such as Heinz's Good Agricultural Practice Manual for Suppliers, Unilever's Sustainable Living Plan and Walmart's Sustainability Index (2013). We found that while these tools are helpful, there are varying degrees to which they are enforced. There is also evidence suggesting that many of these codes of conduct do not extend beyond bare-minimum requirements for legality and fairness.

Certifications

The lack of a whole-systems perspective at the system level, as well as the lack of a scientifically based definition of sustainability at the success level (beyond simple value statements), has strong implications at the actions and tools level. A variety of the certifications that we studied use standards directly addressing a variety of issues contributing to violations of the Sustainability Principles including, for instance, fertilizer or water usage per hectare (Viart 2013). Although many of the existing certification standards include both social and environmental criteria, they are still primarily focused on greenhouse gas emissions, as well as on achieving productivity and efficiency at the farm level (CT 2013; Malin 2013). Metrics used do not yet take into consideration the specific case or situation for each region in which farmers use the certification (Viart 2013). As the key sustainability challenges are quite different depending on the commodity or region, the interviewee from GFC stated that the company “certainly hasn't found a tool that addresses all that” (2013). This means that several tools within the procurement process are necessary to make adequate decisions. At the same time, GFC is convinced that better alignment is necessary for all of the different certifications and sustainable agriculture schemes. According to the interviewee from GFC, “There’s a lot of certifications, a lot of sustainable agriculture schemes, and to get some alignment on those would be really helpful” (2013).

Our research also led us to a variety of certifications and standards that encourage compliance with the bare minimum of standards and laws, or otherwise basic standards for good practices. According to Duncan Williamson of the WWF, tools or guidelines that are only based on minimum legal compliance with regard to food safety are “not worth the paper that [they are] written on” (2013). He cited the Red Tractor Farm Assurance Scheme for beef and lamb
production as one such example, as it is only a recitation of the basic minimum legal requirements (Williamson 2013). Malin supports the claim that many certifications do not lead to increased sustainability because they do not focus on what the standard ultimately accomplishes (2013). Our research indicates that even the most highly regarded and stringent certification standards still deviate significantly from the Sustainability Principles.

According to Williamson, supplier certifications and standards are an appropriate tool to support sustainable procurement, as they are effective in changing production behavior. However, he indicated that there is no standard or certification that classifies good or bad performance in a clear, comprehensible and credible manner (Williamson 2013). As stated by the interviewee from CT, “certification has the danger of being seen as sort of the panacea to all ills” (2013). According to McCubbin, certification does not necessarily significantly reduce negative impacts, but rather it might be a tool for setting targets that are not ambitious and lead to more bureaucracy instead of improving sustainability (2013). This leads to the possibility that sustainably grown crops do not get certified due to the costs and workload of the certification process and therefore may be excluded from the premium market (CT 2013). Even though Company Y states, “Certifications are good because they guarantee less risk,” the interviewee also mentioned that many actions within the supply chain supporting a movement towards sustainability are not acknowledged because they have not undergone a certification process (2013). Collectively, these results demonstrate that existing tools are lacking credibility and efficacy.

Agricultural Education and Farm-Level Initiatives

Suppliers, as well as companies, are usually not trained in understanding the urgency of the sustainability challenge. Consequently “they don't really believe that climate change exists – they only do what they have to do” (Malin 2013). The benefits of being certified or taking actions towards sustainability are not clear to companies nor suppliers, due to lax legal regulations, bureaucracy, and costs related to the certification process as well as a lack of systems thinking and a long-term goal of sustainable business. “Some of the farmers and millers don't see the benefit of doing anything for sustainability – it's not on their agenda.” (Viart 2013)

GFC and Company Y both acknowledged that they engage in farm-level education and productivity initiatives with farmers that may not be their suppliers. While they both work on regions from where they know their commodities originate, they cannot guarantee that the initiatives are impacting farmers that are actually part of their supply chain (2013). This misalignment is an indication of both the lack of traceability and supply chain knowledge, and decreases the incentives that organizations might have to strengthen farm-level initiatives.

Further actions and tools for suppliers’ assessment

One tool used by companies for purposes of ecological sustainability is moratoriums on commodities from a particular region, like the soy moratorium in Brazil. Greenpeace and the WWF, working with agricultural commodities traders like ADM, Cargill, and Louis Dreyfus
Commodities, blacklisted soy bean growers in the Amazon region in response to significant deforestation in the Amazon Basin (CT 2013). While effective for obvious reasons, this tool is reactionary by nature, as this type of moratorium be avoided if companies had existing criteria that would prevent them from doing business with such farmers in the first place.

3.4.3 ‘Best Existing Practices’

GFC stated that it does not have one procurement tool or specific defined practice, but rather that the procurement process is seen as several business decisions that have to be made by fulfilling the company’s internally developed sourcing strategies. As sustainability plays a significant role in these decisions, the Sustainability Manager within GFC supports a sustainable supply chain by acting as a coach throughout the process (GFC 2013). This makes GFC’s procurement stand out, as Lilli McCubbin from ECO-Buy estimates that only 5 to 10% of existing tools and methods within the field of procurement include sustainability criteria (2013). In our research, however, we were unable to see the specific sustainability criteria used in this sourcing tool, so it is difficult to determine how robust or effective the sustainability aspect of this tool is.

Many actions taken by corporations are aimed at improving traceability in their supply chains, which would ultimately allow for increased leverage over issues of sustainable agriculture (Kissinger 2012). The most common way to foster traceability of the purchased commodities is to keep records of all transactions in terms of commodity quality, time, and place (CT 2013). For IO, a commodity tracking system encourages a high level of transparency and also helps with inventory control and accounting, as they have to integrate donors in the procurement process and report back to them annually on how the donations or funds are spent (2013). Within IO’s supply chain, commodities are traceable to, at a minimum, the local farming cooperative from which they were purchased, though the actual farm may not be known (2013). According to the interviewee at IO, “In terms of sourcing, we have a certain amount of knowledge but couldn’t pinpoint a certain bag. We have a commodity tracking system to report back to donors. We need to say what we’ve done with funding, but it was established to also help with inventory control, accounting, etcetera.” (2013)

Certifications

While none of the roundtable certifications or other sustainability-related certification schemes that we came across in our research requires commodities to be grown in complete alignment with the Sustainability Principles, some of the standards are more closely aligned with the Sustainability Principles than others. These stronger standards employ metrics and regulations that make them clearer, stricter, and more comprehensive. Additionally, some certifications have better reputations for credibility and effectiveness. Certifications highly regarded by Duncan Williamson, Senior Food Policy Advisor at the WWF, include Roundtable on Sustainable Palm Oil, Rainforest Alliance, and Forest Stewardship Council (Williamson 2013).
Although it is recognized that unifying all the stakeholders’ needs in one common standard is an enormous challenge, commodity roundtable certifications are currently considered to be the most effective tool for integrating sustainability into the procurement process. This is due to the fact that the standards are internationally agreed upon by stakeholders, increase traceability along the value chain through multi-stakeholder cooperation, and allow for less documentation at each level of the value chain (CT 2013). IO uses only one certification tool, the RSPO, and emphasized its advantages like time efficiency, simplicity, and transparency through regular audits (IO 2013). One benefit of the RSPO certification process is that it is less expensive and does not raise the price by forcing a fixed price in the market, as for instance Rainforest Alliance certification does (Malin 2013). For Company Y, the advantage is that “typically certification standards like RSPO ultimately buy you that security that everything that’s happening across that supply chain is minimal risk from a social and environmental perspective. That’s one of the good things about having these certification schemes.” (2013)

A positive example of a commodity roundtable certification, Bonsucro represents a widely used tool in the sugarcane sector, developed by multi-stakeholder consensus and pilot-tested worldwide. However, since its inauguration in 2010, only 2.72% of the cultivated land for sugarcane production has been certified and there is only little commitment for buying Bonsucro certified sugarcane (Viart 2013). While other standards are mainly focused on methods for good practices and less on the result that is achieved by implementing the tool, Bonsucro uses clear metrics to define sustainability with a strong focus on positive impacts (Viart 2013). “A clear number a company has to reach [is what] makes the big difference between [Bonsucro and] the other schemes – we look at the outcome. [It is] a clear and defined way of working that ensures credibility of our standard.” (Viart 2013) The Bonsucro standards for sugarcane are comprehensive and incorporate measurable metrics that indirectly address each of the Sustainability Principles. The aim is to achieve efficiency in the processes by producing the highest yields with the least amount of input in order not to damage tomorrow’s resources. These metrics measure the usage of various resources per hectare, including water, fertilizer and pesticides, always with the goal of “achieving efficiency in [the] processes, technical, environmental, and also human resources” (Viart 2013). Strengths of the Bonsucro certification are a long-term sustainability approach, a systems view created by multi-stakeholder cooperation, and efficacy of its metrics. Also, the price for certified sugarcane is not determined (which is different to Fairtrade) but must be negotiated between sellers and buyers, which prevents certified sugarcane from becoming a premium product (Viart 2013).

Rainforest Alliance, UTZ⁴, Fairtrade, Marine Stewardship Council (MSC), and RSPO are the five principal certifications used by GFC, mainly because they incorporate stakeholder processes that are continuously improving, even though GFC does not currently regard them as strict enough or strong enough. GFC is negotiating on the improvement of them with regards to stronger criteria (GFC 2013). It expects a standard to minimize supply chain inefficiency and regards this as a benefit to all stakeholders. According to GFC, “No one wins if there's inefficiencies in the supply chain. Transitioning to a fully segregated supply chain can be

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⁴ A certification scheme for coffee, tea, and cocoa.
expensive, inefficient, and you would have to wonder ‘to what end?’” (2013) GFC has also taken unilateral action to address the fact that there is not a certification scheme for all commodities, as well as the fact that many of the schemes are unsatisfactory. Through its engagement with the peanut industry, for example, GFC has worked to minimize water usage and other inputs in farming practices. As GFC stated, “Certification is not always the answer. The answer is we want sustainable raw material. For our work with the peanut industry, for instance, we feel like we are achieving what we want to achieve without certification. We are not always going to certify.” (2013) GFC acknowledged, however, that a comparison between certified and non-certified cocoa farms showed that the certification process led to minimized environmental impacts and successful farming practices (with regard to growers’ income and commodity quality) (2013). Another advantage of certifications according to GFC is that, “through certification you can really drive scale and create positive change in the supply chain” (2013). As previously mentioned, however, even the strictest certification standard would allow for farming practices that deviate significantly from the Sustainability Principles, necessitating the continuous improvement of these standards.

Supply/Demand Assessments and Impact Assessments

As previously mentioned, future supply/demand assessments can be of great value to organizations, influencing their perspective on future availability of agricultural commodities. As mentioned by GFC, these assessments are useful for creating organization-wide buy-in, as they increase understanding of the future threats to the wellbeing of the business caused in part by unsustainability (2013). According to GFC, “Forecasting is not a simple exercise, but if you can break it down into something simple, it tends to get people’s attention” (2013).

Our research also indicates that there is significant value in making use of impact assessments to gather all of the necessary information about the social and environmental impacts of farming practices. This also allows for better understanding of what steps need to be taken to make improvements. According to GFC, “you have to get your boots dirty – getting out in the fields to know what’s going on” (2013). Only if there is an in-depth understanding of what is happening at ground level would the development of a standard or project be relevant (GFC 2013). Regarding impact assessments, GFC also stated, “It’s a mix of art and science. We try to gather as much information as we can about the social impacts of commodities and then try to gauge our ability to influence. We would like to see better clarity in the future.” (2013)

We have found varying degrees to which carbon footprinting is used for agricultural commodities. When selling biofuels to the European Union (EU), strict sustainability criteria, including carbon footprinting, must be fulfilled. Also as part of a voluntary Brazilian industry initiative, the carbon footprint of Brazilian orange juice is measured. Other instances of carbon footprinting are limited to instances when customers down the supply chain demand it (CT 2013). One tool that is used by several corporations, including Unilever, PepsiCo, Heineken, Costco, and FD, is the Cool Farm Tool, which was developed by Unilever in partnership with the University of Aberdeen, and is now managed by the Cool Farm Institute. Its purpose is to help farmers mitigate climate change by identifying and then reducing carbon emission
hotspots. Organizations use the tool (which is free for farmers) in the field to initiate conversations between producers and suppliers and support decision-making processes in order to make a “cultural shift at the agricultural level” (Malin 2013).

Education at the company level

GFC described the process of spreading awareness of sustainability issues throughout the entire supply chain as “the start of a long journey” (2013). Our interviewee at GFC recognizes that one of the most effective leverage points to shift the current thinking is education. A great deal of time is dedicated to the internal education of employees regarding the urgent sustainability challenges society is facing. According to the interviewee, people in general have not yet realized the importance of issues such as the future availability of commodities, which are essential for the business's survival. With regards to this, GFC also mentioned the need for better access to all of the important information and research, increased transparency, and better alignment between certifications and laws (2013). Additionally, the interviewee stated that the field is still relatively new and uncertain, a problem that could be bridged by “a tool or a highly trained and skilled person, maybe a sustainability coach, who synthesizes all the information” and helps procurers to better understand the whole picture and make better-informed decisions (2013). As Company Y recognizes, “business will not survive” if the necessity of integrating sustainability into the Company Y’s operations is disregarded (2013).

Addressing sustainability at the farm level

A common action taken, often through multilateral cooperation between commodities traders and their clients down the supply chain, is educating farmers in cooperating with local organizations on farming practices that focus on yield improvement and increased productivity. Public meetings are organized in order to demonstrate how to grow crops, when to apply pesticides, as well as to teach practices that help avoid chemical leaching, and increase of resource usage efficiency (CT 2013). CT educates African farmers on HIV and AIDS prevention as a contribution to social sustainability. These programs increase the productivity of the farmers and their families, thereby increasing the farmers’ revenue and benefitting procurers (CT 2013). GFC has established technology transfer centers in Africa, which are funded by suppliers and initiatives for training farmers on how to grow rice more sustainably by achieving higher yields. In the Ivory Coast, GFC coordinates the supply of planting material, training, and fertilizers to improve yields (GFC 2013). By improving yields financial, environmental, and social advantages are possible. “Once you get something like that, that pencils out on all three aspects, you have a clear winner.” (GFC 2013) GFC also stated that “Farm-level is typically going to be the most important [place] to drive change, both from a social and environmental perspective. In some cases, with the right package of planting material, training, and fertilizer, farmers can triple their yields.” (2013)

Partnerships with organizations in the sustainability field

Many organizations recognize the value of partnerships as a strategic tool for dealing with sustainability issues. NGOs like Oxfam, WWF, and Greenpeace advise organizations on how
to make their business practices environmentally and socially friendly. When asked about the role of strategic partnerships in their organization, IO stated, “We empower through cooperation with partners. We use our tools to work with others to support other efforts in gender equality, disaster mitigation, building resilience, etcetera.” (2013) Through work with partner organizations, IO does a large amount of work in building resilience and disaster risk reduction to mitigate the impacts of environmental degradation and climate change.” (2013) At the farm level, local actors are employed to manage region-specific issues. Commodity roundtables provide the forum for stakeholders and competitors throughout a commodity value chain. Furthermore, GFC cooperates with Sustainable Agricultural Initiative (SAI), the Sustainability Consortium, and the SFL who “convenes the discussion between lots of other food procurers. Lots of companies go there.” (GFC 2013) GFC works with the Ivory Coast government on its sustainable cocoa initiatives. By doing so, GFC has taken a leadership position in the cocoa market (GFC 2013). The following figure summarizes the results for the ‘Ideal Case’, the ‘Current State’, and ‘Best Existing Practices’ at the actions and tools level.

### Actions and Tools Level

<table>
<thead>
<tr>
<th>Ideal Case</th>
<th>Current State</th>
<th>Best Existing Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Individual actions and tools that guide the organization in its strategic process to move towards sustainability and reach its ideal vision of success.</td>
<td>• Lack of strict guidelines and clear metrics within certification schemes → weakens credibility of certifications • Focus on GHG emissions and agricultural productivity • Tools fail to communicate benefit of adopting sustainable measures</td>
<td>• Procurement decision support • Education at company level • Roundtables with metrics that continuously improve • Tools for impact and future supply/demand assessments • Farm-level education for increased yields • Cooperation with organizations and government</td>
</tr>
</tbody>
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*Figure 3.4 Summarized results for the ‘Ideal Case’, ‘Current State’, and ‘Best Existing Practices’ at the actions and tools level.*

### 3.5 Recommendations

#### 3.5.1 Multi-stakeholder involvement and cooperation

As demonstrated, many actions taken by organizations indicate that they are capable of whole-system perspectives and have strong understandings of the sustainability challenge in relation
to their procurement of agricultural commodities, but there are certain aspects of their system-
level perspectives that require improvement in order to bridge the gap to the ‘Ideal Case’. A
key strategy for reaching this ‘Ideal Case’ could be improved multi-stakeholder engagement.
Throughout our research, multi-stakeholder engagement emerged as a common theme,
described by interviewees as essential to understanding the role of procuring organizations in
the sustainability challenge, as well as collaborating to take strategic action. Partnerships with
organizations like the SFL, WWF, Oxfam or SAI, can provide advice, support, tools, and
expertise (GFC 2013). They connect companies within supply chains and assist in the transfer
of knowledge that is necessary for innovation, supply chain efficiency, and better-informed
decisions. Partner organizations can also catalyze projects at the farm level, saving time and
resources.

In order to bridge the aforementioned gap to the ‘Ideal Case’, organizations may consider
taking the following actions:

- Expand whole-system perspective through comprehensive stakeholder engagement and
  strengthen existing stakeholder relationships in order to improve understanding of their
  perspectives, needs, strengths, and weaknesses in relation to the sustainability challenge,
  while maximizing opportunity for collaboration.

3.5.2 Impact and future supply/demand assessments

In creating goals and identifying potential areas for improvement, it is essential to understand
the various environmental and social impacts of agricultural practices. Organizations should
allocate resources to focus on research that would enable a deeper understanding of regions,
farming techniques, social issues, challenges and barriers. Impact analyses enable a clear
understanding of how regional farming practices are affecting soil productivity, water
resources, land use issues (such as encroachment, deforestation, etc.), community health,
and other social issues.

An awareness of time and future availability is necessary for organizations to effectively
manage future issues of supply and demand for agricultural commodities. Awareness of the
current unsustainable state of the global agricultural system and the potential for future
production issues allows organizations to ‘backcast’ from future goals and take strategic steps
to mitigate risk and effectively manage supply and demand disparities. Moreover, clear
evidence of threat to the long-term wellbeing of a business is useful creating high-level buy-in
and focus on sustainability issues (GFC 2013).

Therefore, the following actions are recommended:

- Increase impact assessments to improve understanding of the environmental and social
  impacts of agricultural practices for procured commodities.
Employ future supply/demand assessments as a tool for better understanding and communicating the scope of actions that must be taken to enable the agricultural system to meet future demands and organizational goals.

3.5.3 Supply chain cooperation and farm-level initiatives

As previously stated, our research found that a barrier to the procurement of more sustainably grown agricultural commodities is the lack of transparency within supply chains and the traceability of the procured commodities. More knowledge transfer and better access to information is necessary, as the supply chain is often perceived as being too complex, especially when trying to tackle future and current challenges (GFC 2013; Company Y 2013). As one interviewee pointed out, having strong supplier relationships is a better platform to start looking at sustainability issues (IO 2013).

Farm-level initiatives strengthen the relationship between organizations and producers, thereby increasing reliability, security of supply, and reliability of quality. These initiatives can include assistance in implementing standards, education programs supported by local actors, as well as grower summits and research projects (Malin 2013; GFC 2013). This helps to address risky issues such as child labor, women’s rights, inefficient farming practices, low commodity quality and climate change while building trust and enabling farmers to better comply with the organization’s goals on quality and sustainability (CT 2013).

With these insights in mind, organizations should consider the following actions:

- Build a shared vision of sustainable procurement amongst the various actors within the supply chain by initiating dialogues and creating forums for communication. Use these forums to innovate and enact change to improve supply chain processes and create more compelling cases for suppliers to comply with the organizations’ goals through the deciding on mutually beneficial actions.
- Improve farm-level education initiatives to include more education related to farming practices that improve ecological sustainability. While increasing yields is valuable for many reasons ranging from decreased deforestation to increased profits for small farmers, the improvement of productivity may not always consider various other sustainability factors, like pesticide usage or soil degradation.
- Maximize alignment of farm-level education initiatives with the organization’s supply chain. Through the increase in information brought about by improved supply chain cooperation, organizations should work to ensure that the agricultural education measures aimed at increasing sustainability and productivity at the farm level are directly benefitting their organization. This alignment creates greater incentive for organizations to improve farm-level education initiatives, as it directly influences the resilience and sustainability of their supply of agricultural commodities.
3.5.4 Strategic Goals and Definitions of Sustainability

As demonstrated at both the success and actions and tools level, there are a variety of problems regarding the ways that organizations define what constitutes a sustainably grown commodity, if they have a definition at all. The identified problems include: varying standards for particular commodities across different certification schemes, lack of robust and tested metrics defining what constitutes a sustainably grown commodity, significant deviation from the Sustainability Principles for existing standards. Additionally, within organizations there is a lack of long-term goals for the quantities of certified or ‘sustainable’ commodities organizations aim to purchase. This prevents organizations from using ‘backcasting’ as a strategic approach to reaching their goals and proactively addressing their impact on the sustainability challenge. Therefore, the following actions are recommended:

- Develop and implement robust standards defining what constitutes a sustainably grown commodity that employ clear metrics and measurements addressing all agricultural practices that impact alignment with the Sustainability Principles. These metrics should be context specific, as well as clearly define sustainable resource usage, like water, fertilizer, and pesticide usage per hectare.
- Develop and implement internal standards defining what constitutes a sustainably grown commodity for commodities that lack roundtable or other certification standards. The lack of roundtable standards should not prevent organizations from using sustainability criteria in evaluating purchases or vetting potential suppliers.
- Develop long-term goals for the quantity of a certified or ‘sustainable’ commodity that an organization will purchase. Organizations should develop goals for every commodity that they purchase. This is necessary for several reasons, mainly to address the lack of long-term goals for all commodities that companies purchase, as well as providing companies with a vision of success from which they can ‘backcast’.
- Continuously improve upon previously developed standards and metrics with the aim of maximizing alignment with the Sustainability Principles. It is obviously impractical to suggest that standards allowing compliance with all of the Sustainability Principles could immediately be implemented, so the need for consistent reevaluation and improvement of standards is necessary. Many commodity roundtables already have policies requiring consistent improvement and reevaluation of standards, like Bonsucro, for example, which convenes stakeholders to improve standards every five years (Viart 2013).
- Push for the development of unifying certification standards. As the director of sustainability for CT mentioned, quality standards for any widely traded agricultural commodity are relatively consistent worldwide (CT 2013). This would indicate that implementing worldwide sustainability standards for a particular commodity might not be too far-fetched.
3.5.5 Proactive strategic approach

As demonstrated at the strategic level, there is a lack of clear prioritization methods for weighing sustainability factors against other factors in selecting suppliers and evaluating options when purchasing agricultural commodities. In the absence of widespread, uniformly applied sustainability standards for all agricultural commodities, there is a need to assist procurers in prioritizing sustainability-related factors. Every organization that we studied employed ‘age old’ methods of procuring, which involve weighing various factors and making an informed business decision, though the degree to which clear sustainability information influences that decision is obviously limited. The interviewee for GFC indicated that a prioritization formula providing procurers with a definite answer is an unlikely solution, but that improved prioritization of sustainability-related factors would more likely come with the improved capacity of procurers to understand and synthesize the various factors (GFC 2013). While the increasing urgency of the sustainability challenge may eventually lead to significant sustainability education initiatives across all organizations, the sustainability manager from GFC said that an alternative might be a “sustainability coach” or a trained sustainability practitioner capable of supporting procurers in understanding and supporting the sustainability-related factors that influence procurement decisions (GFC 2013). The following actions are therefore recommended:

- Develop clear sourcing protocols for every agricultural commodity purchased that require procurers to gather commodity and supplier-specific information on the sustainability of the practices used to grow the commodity.
- Educate procurers on sustainability issues related to the particular commodities that they procure so that they understand the potential environmental and social impacts of the practices used to produce the commodity and can properly synthesize this information and use it to make informed purchasing decisions that are in line with the organization’s long term goals. Additional assistance for procurers, perhaps in the form of a sustainable sourcing advisor, may be required to aid procurers in understanding the aforementioned sustainability issues so that they can make informed purchasing decisions that are in line with the organization’s long-term goals.
4 Discussion

4.1 Main Findings

Our findings indicate a variety of ways that organizations can increase the sustainability of the global agricultural system through taking strategic actions to improve their capacities to procure agricultural commodities grown in the most sustainable manner possible. In summary, the main issues with the current state of the sourcing of agricultural commodities that need to be addressed by multinational organizations in order to decrease their impact on the unsustainability of the global agricultural system include the following:

- Insufficient comprehensive, whole-system perspectives, and understanding of the sustainability challenge with regard to future availability, human impacts, and the full scope of impacts that large procurers of agricultural commodities have on the global agricultural system;
- Insufficient implementation and development of robust metrics defining what constitutes a sustainably grown agricultural commodity for all commodities procured;
- Insufficient development of long-term goals for the procurement of certified or otherwise ‘sustainable’ agricultural commodities;
- Lack of clear guidelines or protocols for prioritizing sustainability in making procurement decisions; and
- Lack of multi-stakeholder cooperation, limiting transparency, traceability and access to supply chain information.

Based on our analysis of the ‘Best Existing Practices’ that we discovered in our research, and logical inferences we made from the ‘Current State’ of the procurement of agricultural commodities by multinational organizations, we identified the following steps that could be taken to improve these organizations’ capacity to procure agricultural commodities grown in the most sustainable manner possible:

- Increase multi-stakeholder and supply chain cooperation in order to increase traceability and align farm-level education initiatives with the long-term goals of organizations;
- Increase assessment of farming impacts and projections of future supply and demands;
- Develop and implement robust definitions of what constitutes a sustainably grown commodity that employ demanding standards and clear metrics for all procured commodities;
- Develop long-term goals regarding the purchase of certified or ‘sustainably’ grown commodities; and
- Implement clear protocols helping procurers to prioritize sustainability in making procurement decisions and provide the necessary education or coaching for them to properly synthesize the various factors.
If organizations like those targeted in this study were to change their procurement practices, implement our recommendations and ultimately procure 100% sustainably grown commodities, the sustainability of the global agricultural system would improve vastly. There are, however, many other issues that would need to be addressed for the global agricultural system to be truly sustainable.

The consolidation of power among such a small number of multinational organizations (especially corporations) could ultimately prove beneficial to the global agricultural system, but this consolidation is merely a silver lining in an otherwise unsustainable situation. Resilient and sustainable local economies do not rely on multinational corporations to provide them with goods from the other side of the globe. Moreover, such highly concentrated power could lead to serious problems with regard to trust and inequality. Thus, the use of multinational organizations as a leverage point for creating a more sustainable global agricultural system may only be a temporary fix that creates a flow of more sustainable agricultural commodities until resilient and sustainable local economies are able to emerge.

The recommendations made in this study can be beneficial for the procurement of any agricultural commodity, but it is important to consider that many agricultural commodities are, by their very nature, more sustainable than others due to the resources required to grow them and their effect on the soil and the environment around them. Therefore, a fully sustainable organization may not purchase a certain sustainably grown commodity, but might instead look for a replacement that serves the same function in their products, but that may be more sustainable regardless of what farming methods are used. In this regard, the recommendations made in this study cannot build a fully sustainable global agriculture system. Organizations need to consider not just how their commodities are grown, but also whether or not there is a different commodity that provides the same function, but is more sustainable due to its biological makeup, the farming methods required to grow it, or necessary energy inputs.

The applicability of our recommendations may vary based on the organization trying to implement them. While our aim was to create recommendations that could be implemented by any of the organizations that we interviewed, some of the organizations may be unable to implement them with the same ease as others. CT and FD, for instance, are beholden to their customers, whereas GFC and Company Y are obligated only to end-use consumers. While CT and FD are in position to cooperate with their customers to create a flow of more sustainably grown agricultural commodities, they ultimately have to react to the will of their customers in order to continue operating. The nature of IO is such that they must react both to the desires of their donors and to emergency needs of people around the globe. Therefore, they may lack the flexibility to implement our recommendations. While different organizations that we focused on may have varying abilities to implement our recommendations, they all face significant risks from the growing sustainability challenges in the global agricultural system, and therefore must take action to continue operating in the long term.
4.2 Strengths and Limitations of the Study

The main strength of our research lies in the relationships between the various organizations that we interviewed. The value of our research was also improved by the size and global reach of the organizations we studied. The four multinational corporations that we interviewed occupied varying positions in their global supply chains and demonstrated different degrees of leverage for impacting the global agricultural system, giving us a broad range of information describing how changes at the farm level can be affected by an organization’s role in the supply chain.

The relationships between the organizations that we interviewed gave us a well-rounded and comprehensive view of the current state of the procurement of agricultural commodities by large multinational buyers, as CT is a supplier for both INGO and GFC, the WWF has partnerships with CT, Company Y and GFC, the Sustainable Food Lab has a partnership with GFC, and CT is a member of Bonsucro, as well as a producer and procurer of Bonsucro certified sugar. These relationships enabled us to check information from one organization against the information provided by another organization that works directly with them, while also allowing us to view the data in the context of a supply chain and stakeholders for which we already had data.

While the number of interviews and our overall data pool were limited by the inability of organizations to assist us with our research, the interviews that we were able to conduct provided us with in-depth responses and relevant data from which we could formulate our analysis and answer our research questions. Our interviews ranged in length between two to four hours, and all of the interviewees from the organizations had made advanced preparations for the interviews. While we may have been aided by additional interviews from large multinational buyers of agricultural commodities, the depth with which we were able to analyze the organizations interviewed and the relationships between them compensates for the overall size of the data pool.

Perhaps the largest factor limiting our research was the sample size of organizations that we were able to interview. While the information that they shared was insightful and illuminating, it represented only a portion of procurement practices in the field. Had we had the opportunity to cooperate with additional organizations, we likely would have seen more varied ‘Best Existing Practices’.

The large corporations that we interviewed were occasionally limited in terms of what information they were willing or permitted to share. With GFC, for instance, we were provided with valuable information about their sourcing protocols, but we were unable to analyze the tool in-depth due to our inability to access this proprietary information. Additionally, we were unable to gain information about the length of contracts with suppliers from any organization, or read internal sustainability-related memoranda. The main place where accessing proprietary information would have been most beneficial would have been in improving our understanding of supply chain barriers to procuring more sustainably grown agricultural commodities.
Studying the full scope of an organization’s supply chain, however, would have been an unreasonably difficult and time-consuming task, especially given the lack of information that multinational corporations have about their own supply chains. Another factor that influenced our research was the fact that we spoke with only one individual within each organization. While most interviewees conferred with their colleagues prior to our interviews, taking on person’s perspective as indicative of the views of the entire organization could have limited our research.

Additionally, conducting interviews with organizations holding varied places within the supply chain, necessitated that we adjust our interview questions to specific roles. This, combined with using a semi-structured approach, led to a various interpretations and responses to the same questions.

The lack of interviews or information from producers of agricultural commodities in developing countries would have added additional value to our results. While CT farms agricultural commodities in developing countries, it does so on a large scale and already adopted roundtable certifications. Interviews with small-scale farmers in developing countries may have been valuable in shedding light on what is preventing the widespread adoption of standards for certified commodities, among other issues. While we received information about this from companies and stakeholders, the perspective of farmers would have given us a more complete picture.

Another factor limiting our results was the overall lack of published literature on the procurement of agricultural commodities by multinational corporations or INGOs. Dr. Jason Clay of the WWF has written and spoken extensively about this topic, but he alone seems to main authority on the topic. While we found extensive literature on sustainable supply chains, sustainable procurement in general and on government or public procurement, this literature did not aid us in narrowing our focus or guiding our research. The limited literature on the specific topic of the procurement of agricultural commodities prevented us from taking a more narrow scope and answering more specific research questions.

4.3 Comparisons to other studies

While there is substantial research that investigates value chains and procurement, there is little that employs the same scope as our research. Current research tends to only address CSR related issues in value chains (Leire 2009; Walker 2012; Seuring 2008; Carter and Jennings 2004; Björklund 2010; Preuss 2001) or do not address the full scope of sustainability in regards to procurement of agricultural commodities by multinational corporations or INGOs (Malonie and Brown 2006; Jay et al. 2008; Fitter and Kaplinsky 2001; Bolzani et al. 2010; Kumah et al. 2011; Kissinger 2012; Smith 2008). This specific topic has been addressed mostly in reports intended to draw attention to environmental degradation or human rights abuses by organizations like Oxfam and the WWF. Studies or reports regarding the procurement of agricultural commodities by INGOs are few, and those that exist tend to focus primarily on the
procurement of manufactured goods and services (Oroluntoba and Gray 2006; Beamon and Balcik 2008). It is difficult, therefore, to compare our research to other studies.

We found that FSSD approaches to analyzing procurement practices were limited to thesis research and other research undertaken at the Blekinge Institute of Technology. The analysis of our topic is unique, however, as none of this FSSD-based research addresses the procurement of agricultural commodities specifically. Silkey et al. (2010) used the FSSD to develop strategic guidelines for consideration by fashion brands when working toward a more sustainable supply chain. The study was focused more on improvements that could be made across the entire supply chain, whereas our research focuses specifically on improvements affecting sustainability at the farm level. Like this study, however, the authors recommended increased collaboration with suppliers. Additionally, McCubbin et al. (2011) used the FSSD in looking at global supply chains. Many of the weaknesses that these authors identified within the supply chain are similar to the weaknesses found in this study, including the lack of long-term goals and a definition of sustainability communicated across the supply chain. In Cecilia Bratt’s study of eco-labeling and green procurement (2011), she made recommendations similar to the recommendations of this study, including more thorough sustainability assessments and increased interactions between key actors.
5 Conclusion

A sustainable global agricultural system is not only desirable for all living on earth, as far as continuing to provide individuals and organizations with the goods and services that they desire and crave, but necessary for our very survival. The large and influential organizations, some of whom were interviewed for this thesis, play a key role in affecting how this system functions. Using their immense purchasing power, they stand to profoundly influence the way this system functions, from farming techniques to resource management to workers’ rights and security.

If these large multinational corporations and INGOs were to adopt robust definitions of sustainability, take a whole systems perspective to their practices, and work to encourage sustainable practices throughout their value chain, it can be assumed that the benefits could be numerous and incredibly significant for society as well as the planet. Increasing yields using the same or fewer resources and meeting demands in a strategic manner could drastically improve global food security and planetary health. Investing in stakeholders and meeting the needs of those at the farm level could lead to better livelihoods and working conditions. A procurement system that is more efficient and strategic will be better able to navigate natural disasters, risks, and meet increasing demands of a growing and increasingly complex society.

The breadth and scope of our study led us to a variety of interesting questions for further research that could aid companies and organizations in moving the global agricultural system toward sustainability:

- What is the business case for buying more sustainably grown agricultural material? What is the most effective way to communicate this to multinational companies?

- How does one compare social and ecological benefits to monetary benefits of improved sustainability in procurement practices? How can these often unquantifiable benefits be expressed to sectors of the population in terms that they can understand and that also provide leverage for change?

- How can a multinational organization increase influence and control over sustainability in its entire supply chain, beyond just agricultural products? What are the key leverage points? Does increased transparency in fact lead to increased sustainability in supply chains?

- What are the impacts of roundtables and how are they most effective in moving the global agricultural system towards sustainability? As they are a rather new concept, it would be valuable research the contributions of commodities that have adopted their certifications to sustainability in the global agricultural system.

- To what degree do farm-level initiatives aimed at increasing yield impact the sustainability of the farming methods that are used? What other efforts (education, improved infrastructure, etc.) at the farm level are necessary to promote sustainability?
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Appendix A

Below are the interview questions that were used in interviewing multinational organizations.

Interview on procurement of agricultural commodities by multinationals and INGOs

Thesis project by Eric Bragg, Kyla Krogserg, Christiane Schwaller
Master students ‘Strategic Leadership towards Sustainability’
Blekinge Institute of Technology, Karlskrona, Sweden

This interview will require a time commitment of approximately 60 - 90 minutes and will be confidential, though a thesis and potentially scientific papers or reports may be written based on the data collected.

Time and date:
Location:
Method:
Name:
Organization:
Position within the organization:
Number of years at this organization:
Who was present during the interview?
Were there any interruptions:
Contact person:

Purpose of this interview: Gather information about the procurement process

Background questions

1) What commodities does your organization rely on?
2) Do you use a specific tool, framework or methodology in your procurement process?
   a) Was it developed internally or externally?
   b) Do you use this in conjunction with other tools/processes?
3) What is the scope of your procurement process? (Systems view - stakeholders, supply chain
- customers, countries, time-frame, etc.)

4) To what degree is the procurement process influenced by stakeholders and who are the most important ones?

**Movement toward sustainability**

1) Does your organization/department have a definition of sustainability?
   a. If so, what is it?
   b. Does the procurement process help the organization move towards that goal?

2) Does your organization have a definition of sustainable procurement? If so, what is it?

3) What are you doing to incorporate environmental sustainability into your procurement process?

4) What are you doing to incorporate social sustainability into your procurement process?

5) What do you see as the main incentives to procure more sustainably grown agricultural commodities?

6) Do you see the procurement process as something that could influence sustainability?
   a. If so how?
   b. What would be the most effective methods/leverage points/audience?

**Criteria for the procurement process**

1) What do you consider to be a successful procurement process? Which objectives should it meet? For the organization? Beyond the organization?
   a. To what degree does the process that you use meet these criteria?

2) Which factors have the greatest influence on your procurement process (for instance: future availability, price, consumer demand for sustainable products, law, considered externalities (price), taxes)?
   a. How do you prioritize these factors?

3) Who (within the organization) has the greatest decision making power in the procurement process? Why?

4) Do you have a set of criteria for selecting suppliers?
   a. Could you give us some examples?
   b. Of these criteria, which are the most important in choosing suppliers? Why?
5) What policies do you have on the traceability of the agricultural commodities you purchase?
   a. Which information about the suppliers is required/collected?
   b. How do you monitor or validate that information?

6) How consistently do procurers adhere to the specific procurement guidelines?
   a. In what instances (if any) is it acceptable to deviate from the procurement protocols?

**Strengths and weaknesses of procurement process**

1) What do you see as the greatest strengths of the procurement process that your organization is using?
   a. for the organization
   b. for moving the global agricultural system towards sustainability

2) What do you see as the biggest weakness of the process? Why?

**Other tools and supplier assessment**

1) How are suppliers assessed?

2) What labeling/certifications does your organization work with?
   a. Are the standards high enough (in general and according to your definition of sustainability)?
   b. Who audits the certifications (internal or external)?
   c. Do these audits exclude smallholders (due to costs)?
   d. What are the consequences for noncompliance?

**Relationships and supply chain**

1) How many suppliers/subcontractors do you have?
   a. How often do they change?
   b. Do you know your suppliers position on sustainability?

2) Which variables most strongly influence the relationship with your suppliers: length, contract details, proximity, accountability, reliability, familiarity, others?

3) To what extent are suppliers informed about [organization’s] sustainability policies/goals?

4) What level of transparency is there in your supply chain?
   a. Do you feel it is an adequate level?
5) How are farmers integrated into your procurement practice?
   a. Does your organization communicate with/teach farmers, so that they can meet the demand for sustainably grown goods?
   b. If so, what methods do you use?

6) What partnerships (if any) do you have with sustainability organizations?

Policies/Laws

1) How do local, national and international laws influence your procurement process?

2) How much are sustainability and transparency already demanded by laws?

Barriers and challenges

1) What are the biggest challenges you face in implementing the procurement process used by [organization]?

2) What are the main barriers to procuring more sustainably grown agricultural goods?

Future

1) What changes do you think could be made in the procurement process that would make it better suit your organization’s needs?
   a. More sustainable?
   b. Why would you implement these changes?
   c. How would you implement these changes?
Appendix B

Below are the questions that were used in interviewing experts from different organizations.

Interview on procurement of agricultural commodities by multinationals and INGOs

Thesis project by Eric Bragg, Kyla Krogseang, Christiane Schwaller
Master students ‘Strategic Leadership towards Sustainability’
Blekinge Institute of Technology, Karlskrona, Sweden

Time and date:
Location:
Method:
Name:
Organization:
Position within the organization:
Number of years at this organization:
Who was present during the interview?
Were there any interruptions:
Contact person:
Confidentiality:

Purpose of this interview:
- To gain expert knowledge from an external perspective about the procurement of agricultural commodities in order to guide and inform thesis research on the subject.
- To gain potential contacts to organizations that procure agricultural commodities

Interview Questions

1) Do you have any questions or is there something which needs to be clarified before starting with the interview? Do you need to know more about us and our research?

2) Have you worked with procurers of agricultural commodities? In what context? What are your experiences?

3) How would you describe current trends regarding sustainability in the procurement process of agricultural commodities?
4) Are there common standard procurement tools/methods that organizations (multinationals/INGOs) often use?
   a. If so what are they?
   b. Is it possible to access them externally?

5) What factors typically have the most influence on the procurement process?

6) Do you know a pioneer/model/best example for sustainable procurement of agricultural commodities?

7) What are the most urgent problems in the global agricultural system which have to be addressed by INGOs and multinationals? What could be the first steps for companies to address these issues?

8) In your opinion, which criteria/goals/features would be included in an ideal sustainable procurement process?

9) What has your organization identified as the key incentives for organizations (multinationals/INGOs) to procure more sustainable agricultural commodities?

10) As a leverage point for encouraging sustainability, do you think it is more effective to work with suppliers like global commodities trader or a consumer packaged goods firm like Unilever (for example)?

11) To what degree are supplier certifications/standards an appropriate tool to support sustainable procurement?
    a. Which standards would you recommend to an organization looking to incorporate sustainability into their procurement process (FSC, Global GAP, Fairtrade, organic, UTZ, Rainforest Alliance, etc.)?
    b. Where do you see gaps/problems but also strengths in the current certification system?
    c. What should be developed/where are additional tools necessary?

12) What are the biggest challenges/barriers for sustainable procurement (within INGOs and multinationals)?

13) What role does government play in shifting organizations towards more sustainable procurement practices?
    a. To what degree are businesses willing to go beyond minimum compliance?

14) In which instances are they most willing to do so? Least willing to do so?
    a. In your experience, what are the biggest incentives for companies to move beyond compliance in regards to sustainability (i.e. improved branding, cost saving,
increased efficiency, etc.)?
b. What trends do you see regarding future legislation?

15) How much power do suppliers have to enact change? Could you provide an example?

Contacts
1) Do you have any contacts to organizations which might be useful for our research?
   We are looking to connect with multinationals i.e. The Body Shop (member of the WWF), Unilever, Nestlé, Kraft, Coca Cola, PepsiCo, Kellogg’s, Walmart, Heinz Ketchup, Procter&Gamble, SC Johnson, Diageo, H&M, Starbucks, Danone, etc. but also INGOs i.e. WFP, Unicef, Oxfam, Red Cross, etc.

2) Do you have any contacts to suppliers of these companies?

Next steps
1) Can we contact you via email if we need further advice from you?

2) Do you know other experts in this field whom we should contact? Other useful information?
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