

DRAFT:

National Green Export Review for Ethiopia

Baseline Report of UNCTAD

Note

This document is a preliminary draft and not to be circulated beyond UNCTAD and the Government of Ethiopia until it is finalized.

The views expressed in this publication are those of the author and do not necessarily reflect the views of the United Nations.

This document has not been formally edited.

This baseline report was prepared in November 2015 by UNCTAD's Trade, Environment, Climate Change and Sustainable Development Branch in support of the National Green Export Review (NGER) project of Ethiopia. It aims to serve as a background for discussions during the NGER's 1st National Stakeholder Workshop scheduled for December 2015 in Addis Ababa, Ethiopia. It has not been officially cleared by the Government of Ethiopia. Additional information regarding the project is available online at:

[http://unctad.org/en/Pages/DITC/Trade-and-Environment/Green Economy/National-Green-Export-Review.aspx](http://unctad.org/en/Pages/DITC/Trade-and-Environment/Green%20Economy/National-Green-Export-Review.aspx)

Ethiopia NGER

Baseline Report

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INTRODUCTION

The transition to a greener and cleaner development path is a global imperative as recognized inter alia in the Rio+20 outcome document. It is expected to make increasing contributions to economic growth and poverty alleviation which preserving and ensuring sustainability of the environment. In this perspective, international trade can play an enabling role in reducing the environmental footprints of economic activities and ensuring sustainable use of natures' resources for improving economic welfare of peoples, especially those that depend directly on such resources. In this regard, UNCTAD has launched its national green exports reviews (NGERs).

The present baseline report examining possible green sectors of Ethiopia has been prepared by UNCTAD to support discussions at a national stakeholder workshop which will launch a **National Green Export Review (NGER)** for Ethiopia.¹ It presents results of UNCTAD's green product space methodology to identify promising green products already produced and exported by Ethiopia competitively in world markets. Of the several goods identified, national stakeholders are expected to select one or two of these products for further study as the focus of the NGER.

The paper seeks to serve as one supporting document, among others, for a discussion among national stakeholders on strategic approaches to further the development of Ethiopia's green goods and services sectors, including within a collaborative, inter-sectoral, strategic context. Selected products/sectors covered in this paper include those in which Ethiopia has already achieved considerable experience, but further growth can be achieved.

Based on the sectors covered in this paper and the results of a national stakeholder workshop, national consultant(s) will be engaged by UNCTAD to canvass a wide spectrum of viewpoints, and both identifying and selecting options for inclusion in a strategic plan for the development of Ethiopia's green goods and services sectors. The selection of sectors made at the 1st National Stakeholder Workshop and the follow-up elaboration of an action plan and its implementation will be undertaken by national stakeholders.

Objective of the 1st National Stakeholder Workshop:

Consider, discuss and select one or two of the products/sectors identified in this paper as the focus of Ethiopia's National Green Export Review.

¹ NGER are undertaken under UNCTAD's project on *Supporting Member States in developing and launching sustainable product export strategies through National Sustainable Product Export Reviews* made possible through support provided by the United Nations Development Account.

I. GREEN EXPORTS: OPPORTUNITIES AND BENEFITS

A: Transition to a Greener Economy and Trade

Across countries, transitions to a greener economy are expected to make increasing contributions to economic diversification, employment creation, export earnings, poverty alleviation and to environmental protection and social equity. A greener economy is driven by both domestic and foreign demand for green goods and services, including more efficient and low-carbon energy and transportation, organic food, ecotourism, solid waste and water recycling, environmental consulting, and emerging categories that include green construction, sustainable harvested timber products and natural fibers. It is also a pillar of strategies to mitigate climate change and promote sustainable development as underscored, inter alia, in the Rio+20 Summit outcomes and possibly new sustainable development goals of the UN.

Many green categories represent just a small fraction of their 'brown' counterparts indicating a vast potential for growth. Whether in high-tech goods, commodities, basic manufactures or services, the export opportunities offered in a greening global economy are significant and expanding faster than overall world trade; a trend that is expected to continue.

There is a large un-tapped potential for developing countries to advance the development of green sectors. In this context international trade, through exports and imports of green goods and services, can facilitate the development of green sectors. There are formidable challenges, however, to undertaking the transitions successfully and engaging in international trade. Principal approaches towards this goal include the creation of an enabling environment through improved regulatory and institutional frameworks for the green economy, productive capacity building, investment and related financial services, and more open trade, with greater attention to social equity, in green goods and services to enhance market access and investment opportunities.

There is a need to raise awareness in developing countries of the largely un-tapped potential of green sectors to contribute to economic growth and, in turn to poverty reduction and sustainable development.

Renewable energy technologies such as solar panels and wind turbines, and energy efficient products such as compact fluorescent lamps are among the green technologies seeing the sharpest rise in exports. Developing countries have made significant progress in supplying global markets for these products; their share of world exports increased from 24 percent in 2002 to 55 percent in 2012, generating export revenues of \$65 billion in 2012¹. Although relatively few developing countries are participating in this trend, green technologies are often produced in developed and more industrialized developing countries using intermediate inputs originating from a wide variety of developing countries that are integrated in global supply chains. Trade in intermediate goods, which accounts for about 40 percent of world merchandise trade, is thus an important entry point for developing countries to supply green markets.² Participation in supply chains generates economy-wide gains, such as employment, improvement in technology and skills, productive capacity upgrading, and diversification into value-added exports.

While businesses in more industrialized developing countries are seizing new export opportunities for green technologies, businesses in less industrialized developing countries continue to build their export capacities in green products such as organic food and beverages, natural cosmetics and fibers,

Green goods and services provide a wide range of export opportunities for developing countries.

biofuels, and sustainably harvested timber and fisheries products, and for green services such as ecotourism. In each of these sectors developing country exports are experiencing sharp growth, generating employment, advancing rural development and protecting the environment.

In addition to green goods, green services, particularly in connection with tourism, provide a wide range of export opportunities for developing countries. Ecotourism is projected to capture 25 percent of global tourism revenues in 2012, with international tourists spending \$240 billion in ecotourism destinations.³

Dynamic green sectors can make important contributions towards the achievement of national development objectives relating to economic diversification, investment, poverty reduction, rural development, employment generation and an overall improvement of social welfare. As such, they can also make significant contributions the future UN Sustainable Development Goals (SDGs) that would shape the UN post-2015 development framework.

Many developing countries require technical assistance to identify and construct effective policy reform packages needed to ensure development gains from a greening global economy.

B: UNCTAD's National Green Export Reviews

NGERs respond to emerging country demand for assessments of national potential to advance the development of national green sectors to generate new production, employment and export opportunities while promoting sustainable development.

Each UNCTAD NGER is centered on a national multi-stakeholder process in requesting countries. Using UNCTAD's green product space methodology, national stakeholders first identify green sectors with promising export prospects. The NGER subsequently guides stakeholders through an interactive review of the economic, regulatory, institutional and trade policy environments characterizing these sectors.

NGERs guide national stakeholders through a structured process to identify and develop new export opportunities in green goods and services.

NGERs aim to assist beneficiary countries to devise national strategies and action plans to advance green product export development.

National teams including two or more experts work closely with national stakeholders to coordinate and conduct the NGER activities and prepare reports. Stakeholders, including national policy-makers, are involved through direct interviews and questionnaires, and through their participation in national stakeholder workshops that serve to define each NGER's objectives and review its findings and

policy-relevant conclusions. Results of this review assist policymakers to design policy packages to support the development of productive capacity and tap external markets for green products and services in which their country has a demonstrated comparative advantage. The NGERs are published and disseminated by UNCTAD and the Government of beneficiary countries as well as other stakeholders. Through intergovernmental fora organized regionally and in Geneva, study results are also reviewed and discussed by researchers, national decision-makers and trade negotiators in the wider trade and development community. National experiences and best practices are exchanged and lessons learnt are disseminated widely.

NGERs rely on the use of various national and international databases, analytical tools and sector-specific questionnaires for use in surveys of national stakeholders.

The NGERs will assist developing countries and countries with economies in transition to improve the capacity of public and private stakeholders to:

1. **Identify and select sectors for national production and export of green/sustainable products;**
2. **Assess the policy, regulatory and institutional requirements for supporting the development of selected sustainable product sectors;**
3. **Prepare and adopt recommendations and action plan for building productive and export capacity in selected sustainable product sectors.**
4. **Mobilize financial and technical support to implement the recommendations and action plan, including by mainstreaming them into national development plans and strategies.**

In focusing a particular green sector in a national economy, and assessing the impacts of economic and market trends, and of regulatory, institutional and trade reforms on its future performance, an NGER leads national policymakers and other stakeholders – particularly businesses and entrepreneurs – to examine a range of important issues for the green sector(s) under study within the context of the overall policy framework for the sector. Issues examined include:

- National development objectives for the sector;
- Areas of effectiveness and weakness in the current policy framework for the sector;
- Regulatory and institutional challenges inhibiting sectoral development;
- Innovative approaches to strengthening backward and forward inter-sectoral linkages within the national economy;
- The role of women and youth in the sector and how employment conditions and opportunities can be improved going forward;

- The role of businesses and entrepreneurs in the sector and how to improve cooperation and build synergies along the supply- and value-chains;
- The likely impacts of sectoral reforms on access to essential services, especially for the poor;
- Prospects for trade liberalization to generate increased efficiency, employment and access to foreign markets, particularly among SMEs;
- Short-term adjustment costs and how to address them;
- The impact of trade liberalization on foreign and domestic investment;
- The overall impact of domestic reform and trade liberalization on sectoral development.

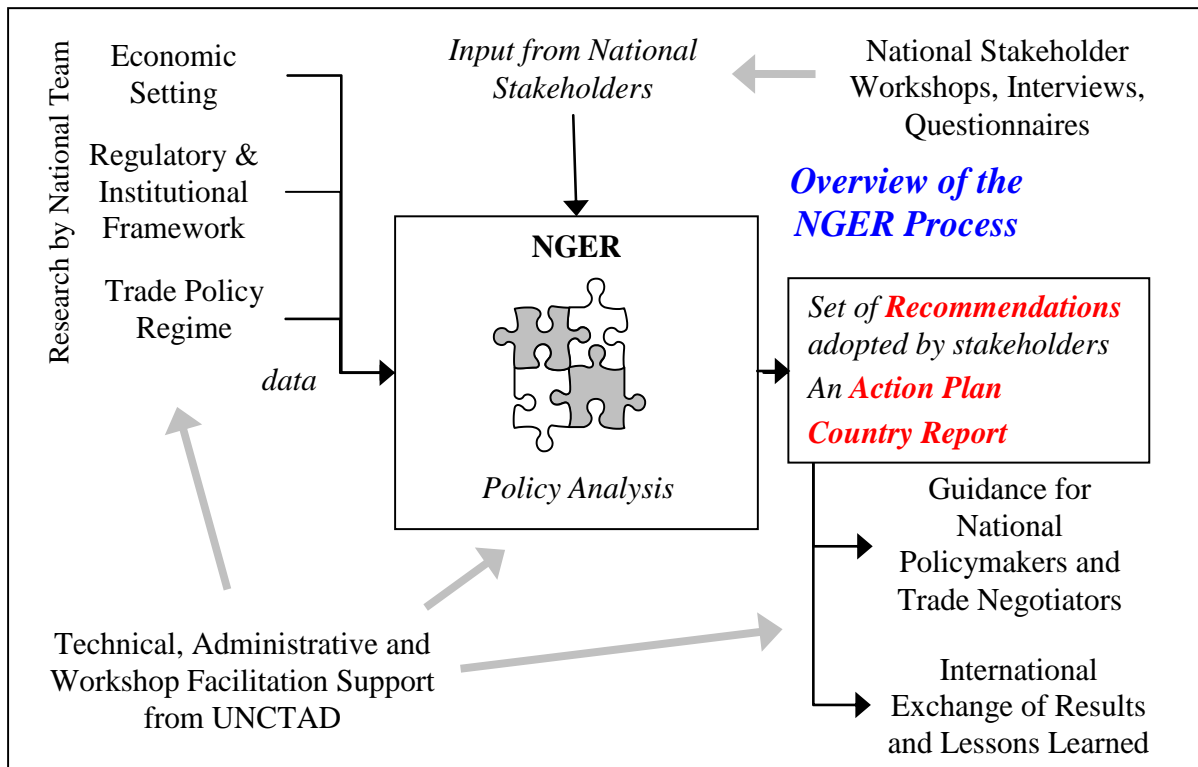


Figure 1: NGER process

C: Green Sectors in a National Economy

There is no internationally agreed definition of a green sector and product. However, it is generally agreed that environmental goods and services generally fall into one of two categories:

1. **Goods and services used to provide an environmental service** such as wastewater treatment, solid waste management, and air pollution control. Related goods include a wide variety of industrial products such as valves, pumps, compressors, etc. that can be specifically employed for environmental purposes.
2. **Goods and services whose production, end-use and/or disposal have reduced negative, or potentially positive, environmental impacts relative a traditional substitute good providing similar function and utility.** This category includes goods are generally used for purposes other than environmental ones. For example, related goods may include items such as chlorine-free paper, renewable energy technologies, energy-efficient office machines, natural fiber packaging or floor covering materials, and a wide range of products associated with sustainable forestry and fisheries, organic agriculture, and ecotourism. Such goods, sometimes referred to as environmentally preferable products (EPPs), have inherent environmentally superior qualities that compared to substitute goods. Related services include ecotourism services or renewable energy transport and electricity supply services.

It is important to note that following the logic used to identify the second category of products above, virtually any product, whatever it may be, can have a non-green and green product variant. Why? Because green products are those that have less of a negative impact on the environment than traditional equivalents. The green product variant could for example be manufactured from recycled components, be manufactured using renewable energy, be supplied to the market with less wasteful packaging, or all three.

Broadly speaking, however, it may sometimes be more practical to identify a green product following the market rather than through the rational approach as attempted above. After all, it is firms and consumers in the marketplace that will eventually purchase these goods and services, and thus their perceptions of what makes a product green should be heeded by suppliers seeking to meet market demand.

For many consumers, a green product is any product made using natural ingredients or are grown under natural conditions without artificial inputs. Typically, such products concern food, medicine, nutrition and cosmetic products made using natural or organically grown ingredients. For some consumers, products that have perceived lowered negative impacts on human health are sometimes considered as green, for example, foods without artificial coloring or preservatives. Consumers also perceive products produced by poor rural communities through fair trade schemes are considered green. This is because the income from the sale of these products generates employment in poor rural communities thereby reducing poverty and placing them in a better position to sustainably manage rural ecosystems and natural resources.

II. GREEN PRODUCTS IN ETHIOPIA: NATIONAL POLICY FRAMEWORK

Policies, laws, regulations and standards applicable to green products and sectors are very broad and, depending on the case, are spread through various sources of regulation. The types of regulations that can affect exports of green products include:

- Environmental Protection Policy in general and of the sector(s) concerned
- Development Policy for the sector(s) and product(s) concerned
- Trade Policy for the sector(s) and product(s) concerned
- Permits to operate, produce, market and distribute the product(s) concerned
- Technical, sanitary and phytosanitary regulations
- Incentives and/or subsidies for production or export
- Standards and certifications, and for some production activities, environmental impact assessments

For the purposes of the NGERs, it is important to bear in mind what strategies and regulations are in place, not only generic ones, but also sector specific ones that might influence production and exports of the selected green sectors.

A. Environmental Protection in Ethiopia

The Government of Ethiopia considers the conservation of the environment and its sustainable use one of its key priorities. Related rights and duties are present in both national and regional legislation and strategies and action plans in the country. While national policies and regulations tend to provide a the framework and guiding principles, the regional states and communities, together with the implementing authorities will provide more specific objectives and action plans, including sector-specific regulations.

At the highest level, the Constitution of the Federal Democratic Republic of Ethiopia, highlights the importance the country places on environmental protection:

- Article 43.1 The Peoples of Ethiopia as a whole, and each Nation, Nationality and People in Ethiopia in particular have the right to improved living standards and to sustainable development.
- Art. 44.1 All persons have the right to a clean and healthy environment.
- Art. 92.1 Government shall endeavor to ensure that all Ethiopians live in a clean and healthy environment.
- Art. 92.2 The design and implementation of programmes and projects of development shall not damage or destroy the environment.
- Art. 92.4 Government and citizens shall have the duty to protect the environment.

Regional states also have their own constitutions. All of them have provisions relating to land and natural resources management and environmental protection. Provisions go in line with the established by the federal constitution whilst also addressing their regional particularities.

More specifically, at the level of laws, regulations and institutions, is the Environmental Policy of Ethiopia approved in 1997. It comprehensively sets forth policy on natural resources and the environment. The overall policy goal is to "improve and enhance the health and quality of life of all Ethiopians and to promote sustainable social and economic development through the sound management and use of natural, human-made and cultural resources and the environment as a whole so as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs".

More specifically, the Environmental Policy of Ethiopia has specific objectives to:

- 2.2.a Ensure that essential ecological processes and life support systems are sustained, biological diversity is preserved and renewable natural resources are used in such a way that their regenerative and productive capabilities are maintained and where possible, enhanced so that the satisfaction of the needs of future generations is not compromised; where this capability is already impaired to seek through appropriate interventions a restoration of that capability;
- 2.2.b Ensure that the benefits from the exploitation of non-renewable resources are extended as far into the future as can be managed, and minimize the negative impacts of their exploitation on the use and management of other natural resources and the environment;
- 2.2.c Identify and develop natural resources that are currently under-utilized by finding new technologies, and/or intensifying existing uses which are not widely applied;
- 2.2.d Incorporate the full economic, social and environmental costs and benefits of natural resource development into the planning, implementation and accounting processes by a comprehensive valuation of the environment and the services it provides, and by considering the social and environmental costs and benefits which cannot currently be measured in monetary terms;
- 2.2.f Prevent the pollution of land, air and water in the most cost-effective way so that the cost of effective preventive intervention would not exceed the benefits.

The Environmental Policy also enables citizens to actively contribute to a clean, healthy and sustainable environment ensuring:

- 2.3.a Every person has the right to live in a healthy environment;
- 2.3.e Appropriate and affordable technologies which use renewable and non-renewable resources efficiently shall be adopted, adapted, developed and disseminated;
- 2.3.i Conditions shall be created that will support community and individual resource users to sustainably manage their own environment and resources.

B. Development Policy: Economic Diversification in Ethiopia

Growth and Transformation Plan

Representing Ethiopia's national 5-year development plan, the **Growth and Transformation Plan (GTP)** aims to sustain rapid economic growth throughout the country, focusing on industrialization, infrastructure, sustainable agriculture, and supporting a transition to a green economy. The GTP's first phase (GTP1 : 2010-2015) is now completing.⁴ A second phase (GTP2 : 2015-2020) has been

adopted by the Government, and while some of its key elements have been announced, the full text of GTP2 is not yet in the public domain.

The GTP presents an overall objective of sustaining the rapid and broad based economic growth witnessed during the past several years and to continually generate new jobs particularly in industry and services to reduce poverty. Efforts to maintain a record of strong growth in the agriculture sector will continue with an emphasis not only on increasing output, but also by improving quality and adding value in the sector.

GTP1 notes that "Environmental conservation plays a vital role in sustainable development. Building a Green Economy and ongoing implementation of environmental laws are among the key strategic directions to be pursued during the plan period."

According to the Prime Minister's report on the GTP delivered earlier this year, the first four years of the GTP (2010 through 2014) saw good performance generating annual 10.1 percent economic growth each year on average.⁵ The agriculture, industry and services sectors registered good outcomes with respective growth rates of 5.4, 21.2 and 11.9 percentage growth over the four-year period.

Growth and Transformation Plan (GTP) 2010-2020

Encouraging large-scale foreign investment opportunities.

Completing Ethiopia's membership in the World Trade Organization and improving the country's commercial regulatory framework.

Providing basic infrastructure in four industrial cluster zones.

Renewing focus on natural resource and raw material industries.

Increasing road networks by 10,000 miles throughout the country.

Building a rail network and creating manufacturing plants for train engines and signaling systems.

Quadrupling power generation while extending transmission and distribution lines.

Seeking investment in renewable energy projects involving hydro, wind, geothermal, and biofuel.

Increasing mobile telephone subscribers to over 40% of the population.

The report also revealed that agriculture's contribution to GDP dropped to 40 percent in 2014 from 45 percent in 2010/11, while industry and services saw their shares grow by 3 and 1 percent each from a 2010/2011, contributing to 14 and 46 percent of GDP in 2014. These developments are consistent with the GTP roadmap which gives priority to the manufacturing sector with the aim to make it the major economic pillar for the country. This has been spurred by Government interventions including restructuring and establishing government institutions (including the Agricultural Transformation Agency to support agricultural production and marketing). These interventions promote manufacturing with an emphasis on textiles, leather, commercial farming and agro-processing.

Despite this progress, some of the very ambitious expectations of GTP1 have not been met. Whereas GTP1 forecasted over ten billion dollars in export earnings by July, 2015, the expected rise in total exports of goods and services fell short of the 10 billion USD target. And GTP1's target for manufacturing exports to rise to 2.5 billion USD was not met. GTP2 aims to refocus attention on meeting and exceeding these targets over the 2015-2020 period in order to lay the foundation for Ethiopia to achieve lower middle income status by 2025. Although not yet in the public domain, recent news reports indicate that the Plan aims to maintain GTP1's target of boosting

manufacturing's share of total exports to 25 percent of and to reduce the country's export dependence on agriculture, which currently accounts for 80 percent of exports.⁶

Climate-Resilient Green Economy Strategy (CRGE)

Consistent with the GTP, the vision of **Ethiopia's Climate Resilient Green Economy Strategy**⁷ is "to achieve middle-income status by 2025 while developing a green economy". To achieve its vision, the CRGE, following also the GTP, focuses on boosting agricultural productivity, strengthening the industrial base and fostering export growth. Overall, the strategy is based on building a climate-resilient green economy that reduces greenhouse gas emissions and reduces the vulnerability to the effects of climate change, while safeguarding economic growth. For Ethiopia, green growth is not only an opportunity to be seized, but also a necessity, since the share of the economy based on agriculture (40 percent of GDP and 80 percent of total employment) is high, Ethiopia's economy is highly vulnerable to environmental degradation.

Ethiopia's Green Economy Strategy is based on four pillars:

1. Adoption of agricultural and land use efficiency measures: Improving crop and livestock production practices for higher food security and farmer income while reducing emissions;
2. Increased GHG sequestration in forestry: Protecting and re-establishing forests for their economic and ecosystem services, including as carbon stocks;
3. Deployment of renewable and clean power generation: Expanding electricity generation from renewable sources of energy for domestic and regional markets;
4. Use of appropriate advanced technologies in industry, transport and buildings: Leapfrogging to modern and energy-efficient technologies.

In its commitment to building a climate-resilient green economy, the Ethiopian Government analyzed all sectors in its national economy and their individual impacts on emissions and their impact on climate (see figure below taken directly from the CRGE document).

From a market perspective, as Ethiopia implements the CRGE, production processes in agriculture and industry will both necessarily adopt more climate-friendly methods and in a greening global economy, a growing number of environmentally conscious consumers will be attracted to the purchase of products produced in Ethiopia. This would be reflected in the increased production and export of green goods. The current project, Ethiopia's NGER, aims to identify and

Green growth will have impact on around two-thirds of the economy

Share of GDP affected (2030) and examples of economic impact/benefits from green economy

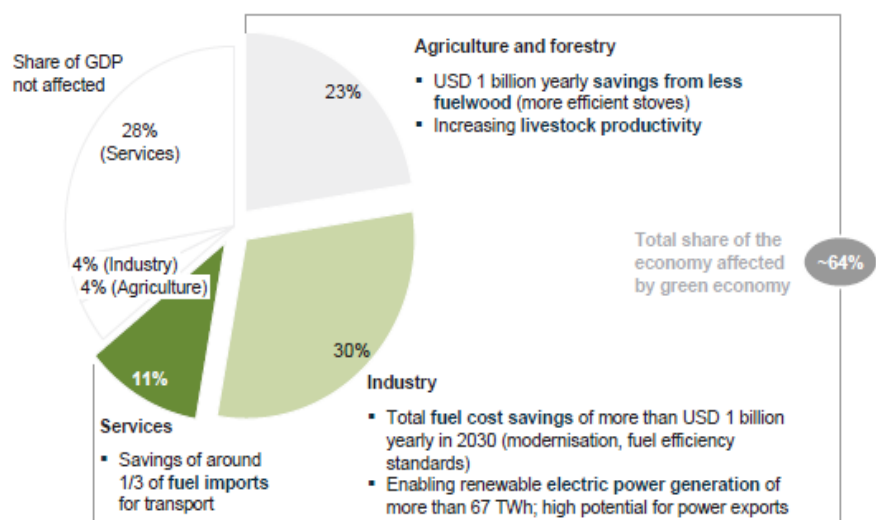


Figure 2. Potential benefits of green growth in Ethiopia

support efforts that can make direct contributions to this outcome. Examples could include promoting the production and export of organic and fairtrade agricultural goods, and other natural products not currently exported, as well as adding value through processing of agricultural goods for which Ethiopia already has demonstrated competitiveness in international markets.

C. Boosting production and export of green goods in Ethiopia

As Ethiopia seeks to broaden its economic diversification, agriculture plays a vital role in ensuring national food security and rural employment, while providing opportunities for value added production methods, and value added processing activities, including in rural communities. By successfully developing the agro-processing industry to move up the value chain in several key agricultural exports of Ethiopia, important contributions to meeting the GTP objectives can be realized.

Recent evolution of the Ethiopian economy

Ethiopia has experienced a relative economic stagnation during the 1990s, followed by fast economic growth beginning in 2002 and continuing until today. While the country’s GDP dropped in 2009 due to the effects of the global financial crisis (See Figure 3), trade patterns remained largely unaffected. Since 2011, stimulated by GTP1 policy interventions alongside population increases, Ethiopia has recorded significant GDP growth accompanied by sharply higher import and export growth.

Over the past decade, Ethiopia's GDP more than quadrupled from 12 billion USD in 2005 to over 54 billion USD in 2014. Double digit growth has been recorded annually nearly every year over the past decade. Overall, this GDP growth has contributed significantly to poverty reduction throughout the country, with nominal GDP rising from 160 USD in 2005 to over 560 USD today.



Figure 3: Evolution of Ethiopia's economy since 1995

At 4.5 billion USD, exports corresponded to 8 percent of Ethiopia's GDP in 2014, however, imports in this 2014 rose sharply in recent years to over 18 billion USD or nearly 35 percent of GDP. With imports continuing to outpace exports in terms of both value and growth rates, there is a recognized

need for policies and actions able to reduce Ethiopia's widening balance of trade deficit. GTP2 will thus seek to boost exports substantially while lowering growth in, or ideally bringing down, overall import levels.

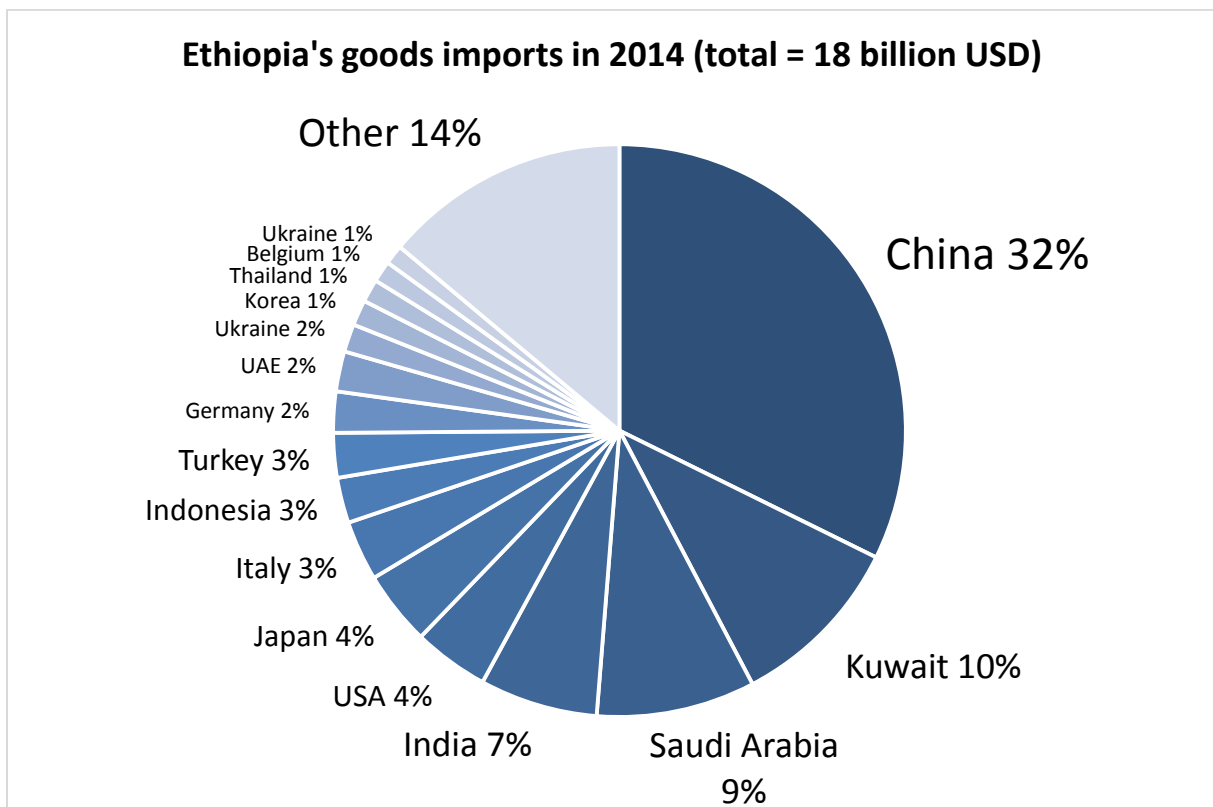
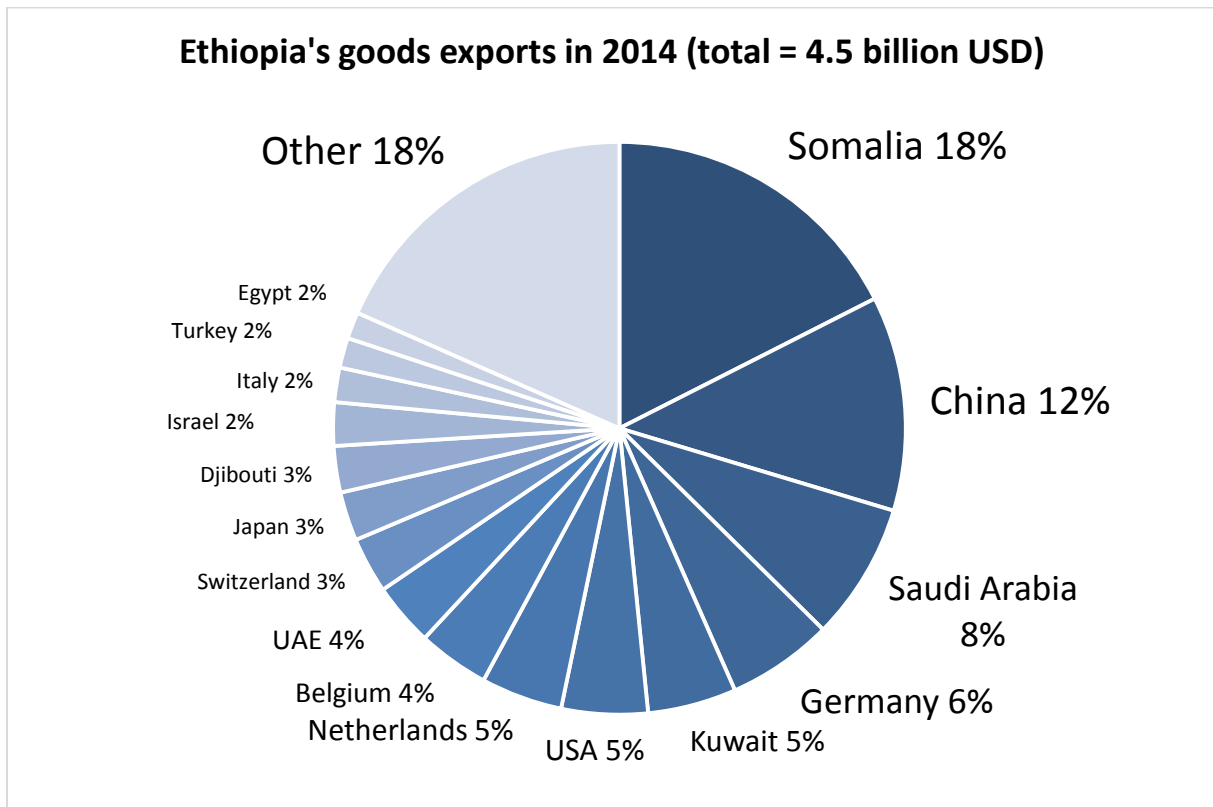


Figure 4. Ethiopia's main trade partners in 2014

In 2014 major trade partners of Ethiopia are presented in Figure 4. While Ethiopia exhibits a very diversified export market, and import origins. It sources a substantial share of its imports from China, the Gulf countries (oil imports) and India, and its exports are mainly focused towards China, the Gulf countries, North America and Europe, with the EU and other African countries, primarily neighbours such as Somalia and Djibouti. Ethiopia is the 121st largest export economy in the world with a rich array of markets for Ethiopian exports indicating strong global demand for Ethiopian produced agricultural commodities, related products, and increasingly, leather, textile and furniture manufactures, as well as an established export network. This strong export market diversification also explains why Ethiopia was not as severely affected by export declines following the 2008 financial crisis as other countries with less export market diversification.

As shown in Figure 5, Ethiopia’s export basket exhibits less diversification than its market diversification. The top four exports of Ethiopia in 2013 were all agricultural exports; Coffee (19 percent of total), Vegetables (14 percent), Oily Seeds (12 percent), and Cut Flowers (9 percent). Together, these four goods alone accounted for over 50 percent of Ethiopia’s total exports (3.87 billion USD) in 2013, while agricultural products as a group (denoted in yellow in Figure 5) accounted for over 65 percent of total exports.

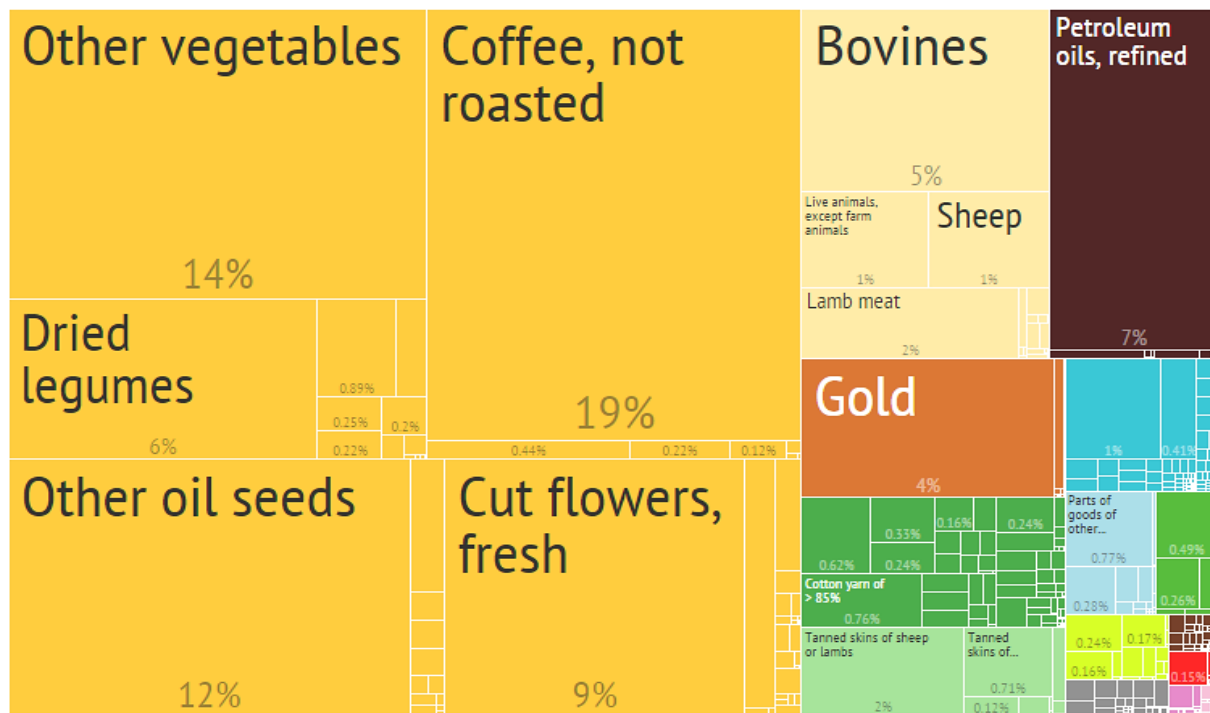


Figure 5. Ethiopia’s export basket in 2013.
 Source: Harvard Atlas of Economic Complexity using UN data.

D. Identifying Competitive Green Products

Applying green product space methodology⁸ to the full set of Ethiopia’s export data (all exported goods) allows for the identification of the export products for which Ethiopia is most competitive in global markets.

When the product space methodology is applied to Ethiopia using 2010 through 2014 export data, several product groups with high levels of competitiveness can be identified. Figure 6 shows the

2010-2014 product space map of Ethiopia. The products depicted as solid black circles in Figure 2 are identified as being **competitive exports with RCA values greater than 1**. Solid grey circles represent products for which Ethiopia is not competitive.

Seven highly competitive green products from the set of competitive products are depicted as green squares. These green products had high RCA values relative to other green products which although competitive, were not as highly competitive, for example, pharmaceutical plants and natural honey have lower RCA values (see Figure 7). The present study seeks to examine **competitive green products from the agriculture and leather sectors which could benefit from more detailed attention**. RCA and export data for these products for the year 2014 follows in Figure 7.

Ethiopia's Product Space (2014)

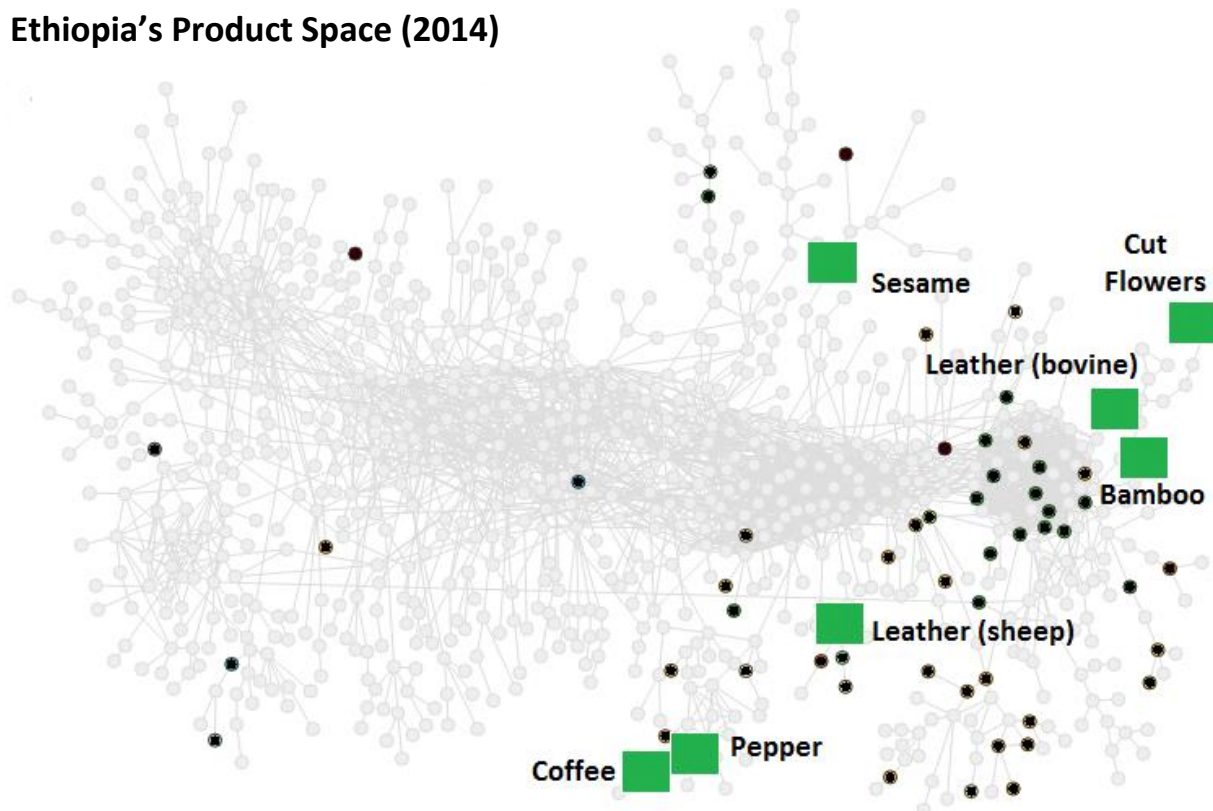


Figure 6. Product Space Map of Ethiopia in 2010-2013

Source: UNCTAD calculations and Harvard Atlas of Economic Complexity (see: <http://atlas.cid.harvard.edu>)

Some of the most competitive exports of Ethiopia based on trade data from recent years are presented in Figure 6. All of the green products identified for further study in this NGER rank favorably among Ethiopia's competitive exports as shown in Figure 7.

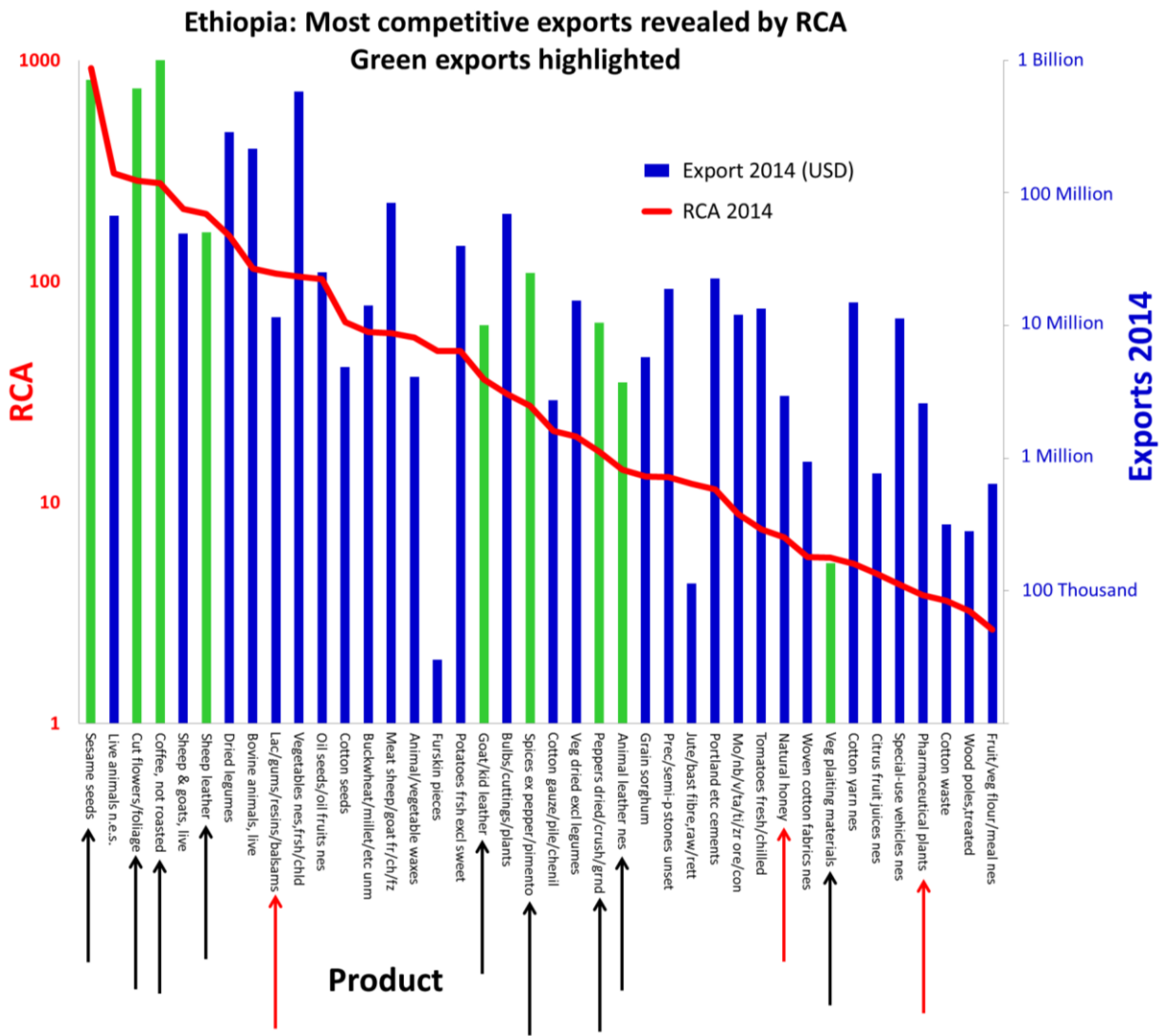


Figure 7. Chart of Ethiopia's most competitive product exports as measured by RCA value in 2014. For each product included on the horizontal axis, the red line gives its RCA value (left vertical axis) and the vertical green or blue column bar shows its export value in 2014 (right vertical axis). All of the products in the chart are exported competitively by Ethiopia, but not all can be considered as being green, or being associated with downstream green products. Green products that are pointed to from below by black arrows, and have green colored column bars, represent green products selected for examination in this NGER project. Products pointed to from below by red arrows are other potential competitive green products that have not been selected for examination. (Please note: vertical axis are on a logarithmic scale).

Source: UNCTAD calculations based on data from UN Comtrade.

IV. PRODUCTS UNDER PRELIMINARY ANALYSIS

Green product space methodology was used to quantitatively identify green products for which Ethiopia has a revealed comparative advantage in production and export. Coffee, Sesame seeds, leather, spices, pepper, cut flowers and bamboo products were thus identified, and in this section, in order to support discussion by national stakeholders, some basic characteristics of these products and their markets are presented.



Coffee



Sesame



Flowers



Leather



Spices



Pepper



Bamboo

What are some key figures for these products?

The production and export performance of the green products is summarized in Table 1. High RCA values indicate that all of the products are ones that Ethiopia is good at producing and exporting. Strong year-on-year export growth reveals high demand for these goods in foreign markets. Three of the products – coffee, sesame and cut flowers – are major foreign income earners for Ethiopia, while others are – spices, pepper, leather and bamboo – have relatively small production bases and still limited exports. However, production and export of these latter products is expected to grow, and related industries mature, during the next decade.

Export product	Total 2014 Exports (USD million)	Avg. Export Growth (% 2010-2014)	RCA (2014)	Share of total 2014 exports (%)	Productivity (FAO, 2012)	World rank as a producer
Sesame seeds	715	21	919	17	7572.1 Hg/Ha (24th)	8th
Coffee	1020	26	277	24	5.212 Hg/Ha (42nd)	8th
Cut flowers	610	38	285	15	-	-
Spices ex pepper	25	15	27	< 1	8913.4 Hg/Ha (53rd)	7th
Pepper	10	113	17	< 1	4852.9 Hg/Ha (32nd)	12th
Leather	60	17	201	< 1	-	-
Bamboo (plaiting material)	1	180	6	< 1		

Table 1. Selected production and export indicators for green products under review

At the same time, crop productivity data (output in hectograms per hectare of cultivated land) suggests that there is an opportunity for Ethiopia to improve farm productivity in sesame, coffee, spices and pepper. Currently Ethiopia ranks low relative to other countries in output per hectare, even though it ranks more highly than these countries in terms of gross annual export volumes.

This NGER project will focus further attention on these products/sectors with a view towards:

- improving economic and environmental performance these products and their derivatives;
- identifying new markets for exports;
- improving farmer productivity;
- linking these products to the tourism sector in order to "export" through tourists;
- adding value to basic products through organic and fairtrade certification;
- adding value by moving up the value chain for these products.

During the First National Stakeholder Workshop, stakeholders will examine these products/sectors and select two of them for detailed study under this NGER project.

Q) Is Ethiopia really a competitive producer and exporter of these products?

A) Yes.

We can assess the stability of RCAs by examining their behavior over several years. Figure 8 presents the RCA values for green products from 2010 to 2014. These RCA values appear stable over the 4-year period. Peppers and bamboo show signs of growth, which indicates increasing production and export competitiveness of Ethiopia in these products.

It is apparent in Figure 8 that the High RCA values observed in 2014 are all stable, and for some of the products they have been increasing in recent years (sesame, coffee, peppers, bamboo). Export growth since 2010 has also been robust for the green products under review.

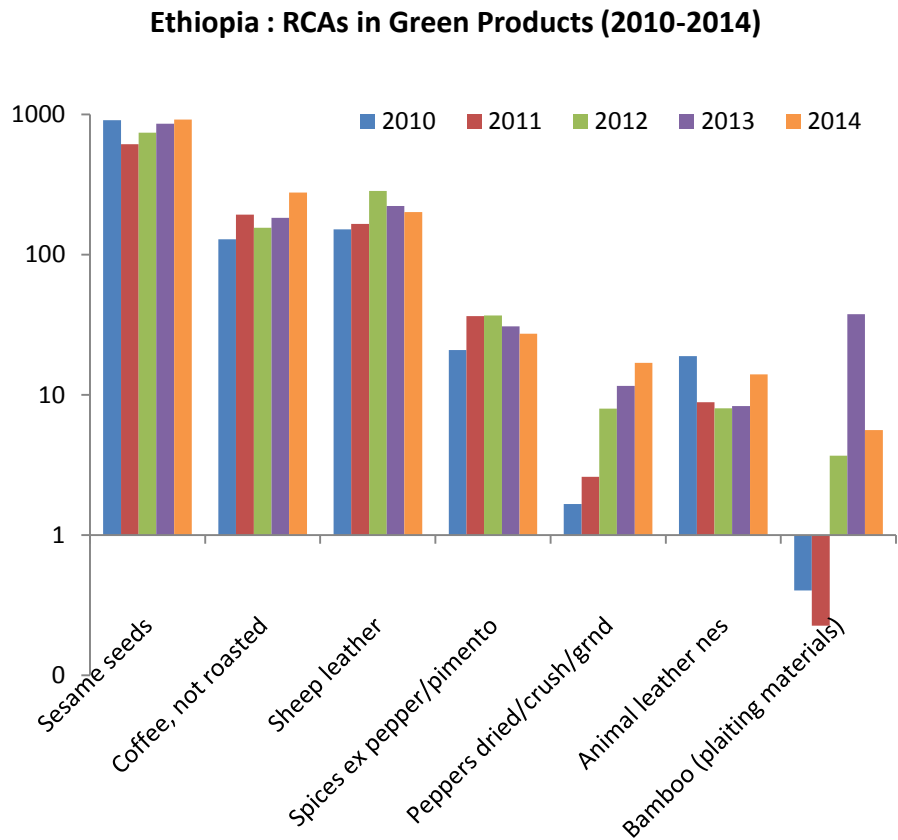


Figure 8. Stability and growth of Ethiopia's RCAs for green products

Source: UNCTAD calculations based on data from UN Comtrade.

Q) Are exports increasing substantially over time?

A) Yes, but not all products.

As shown in Figure 9, sesame, coffee, and cut flowers lead the group, both in terms of export volume and growth. Leather and bamboo (vegetable plaiting materials) exports have remained largely flat over the same period.

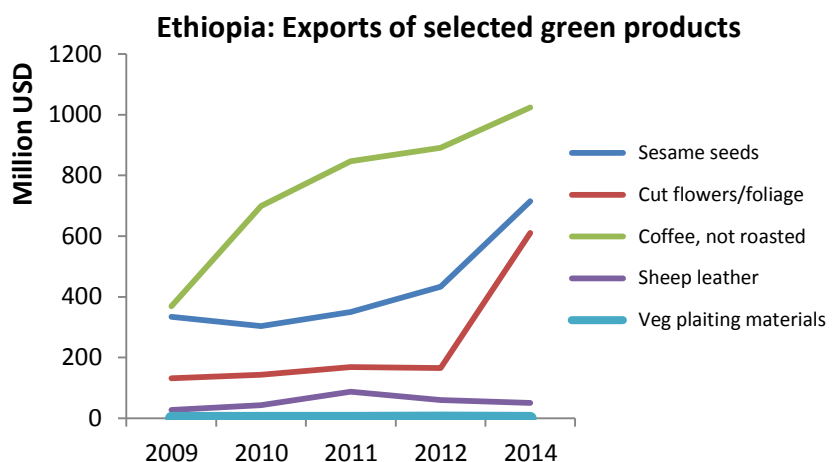


Figure 9. Exports of selected green products

Source: UNCTAD calculations based on data from UN Comtrade.

Q) How diversified are export markets?

A) For some products, very diversified, for others, very concentrated

The destinations of these exports in 2014 is shown in Figure 10. Coffee has the most market diversification, followed by leather. Sesame seeds and cut flowers largely flow to two countries, China and Belgium respectively. Bamboo, not shown here, requires further interpretation of the data to distinguish between raw and finished products and between bamboo and other vegetable plaiting materials.

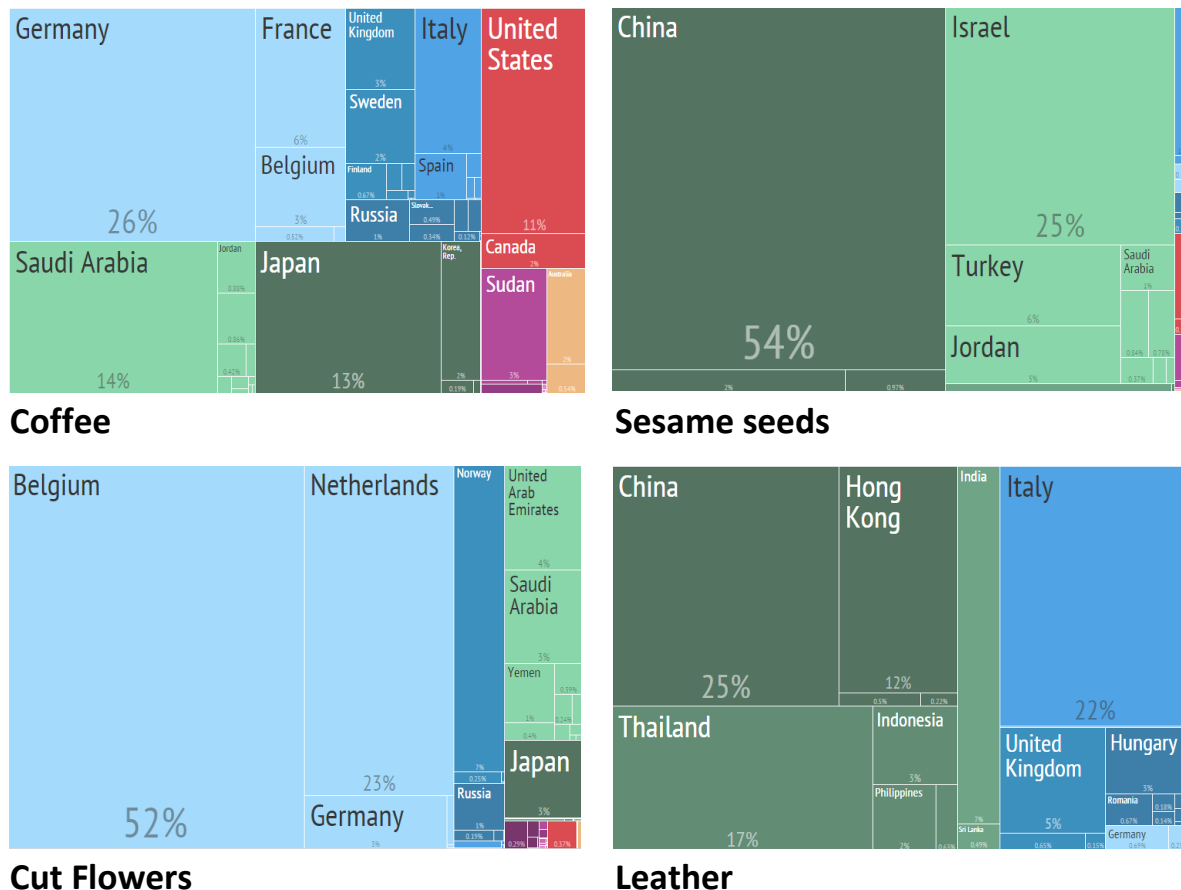


Figure 10. Destinations for green products exports in 2014

Source: Harvard Atlas of Economic Complexity using UN data.

Q) What opportunities exist for adding value to current exports?

A) Value can be added in two ways:

- 1) Enhancing the perceived quality of basic products

Value can be added by attaining organic or fairtrade certification. Value can also be added by attaining a geographical indication of origin.

The example of organic production: Organic agriculture statistics reveal that Ethiopia has substantial strengths in organic production. In 2013 Ethiopia had 151,000 hectares of agricultural land under organic cultivation which represented about 0.5 percent of the world’s total of organic farmland. Data from 2010 indicated that most of Ethiopia’s organic producers are engaged in coffee production (85 percent), sesame (10 percent) and honey and other products (less than 5 percent). Organic honey comes from the over 180 hectares of certified wild land. The number of organic producers in Ethiopia

is growing at one of the fastest rates relative to other countries; over 10,000 new farmers attained organic certification in 2012 alone. In 2013, Ethiopia ranked number five worldwide in terms of number of organic farmers, with over 135,000 producers.⁹

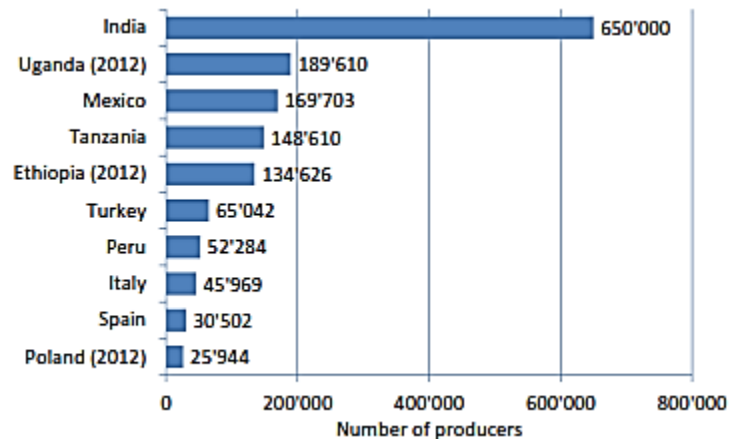


Figure 11. The countries with the largest number of organic producers in 2013

2) Moving up the value chain to more processed, added-value goods

Another second area of interest is exploring ways to create value-addition along supply chains in Ethiopia. This approach would aim to link primary producers to companies in agro-processing, food processing, garment/shoe manufacturing, furniture manufacturing, and to develop the latter in order to increase added-value in Ethiopia prior to export. For example, in the case of coffee, Ethiopia currently relies on unprocessed coffee beans for the bulk of its exports. Developing capacities in roasted coffee, freeze-dried or other coffee-based consumer products could generate additional revenue and higher-income jobs in the sector.

Below the value added possibilities in the value chains of the green products selected for discussion here are summarized:

Coffee Value Chain (preliminary draft - to be elaborated by stakeholders)

Shaded green areas are products that can be marketed in tourism sector

Primary	Added Value (1)	By-products	Added Value (2)
Coffee cherry	Green beans (washed) Green beans (unwashed)	Pulp (wet process) Peel (dry process)	Roasted coffee Instant coffee Coffee capsules Coffee syrup and candies

Sesame Value Chain (preliminary draft - to be elaborated by stakeholders)

Shaded green areas are products that can be marketed in tourism sector

Primary	Added Value (1)	By-products	Added Value (2)
Raw seed	Kernels (soaked in water) Kernels (soaked in lye)	Hulls in saline solution Hulls (dry)	Seeds (toasted or simple) Sesame oil Tahini/sesame paste Sesame powder Sesame bars (sweets)

Cut flower Value Chain (preliminary draft - to be elaborated by stakeholders)**Shaded green areas are products that can be marketed in tourism sector**

Primary	Added Value (1)	By-products	Added Value (2)
Flowers	Cut flowers Cut foliage	Flower stems, diseased plants, discarded bulbs, whole flowers and other green waste	Cut/prepared flowers Dried flower ornaments Scents Flower waters (rose water)

Leather Value Chain (preliminary draft - to be elaborated by stakeholders)**Shaded green areas are products that can be marketed in tourism sector**

Primary	Added Value (1)	By-products	Added Value (2)
Hide/skin (raw) Fur/skin (raw)	Hide/skin (cured) Fur/skins (cured)	Leather trimmings, shavings and dust	Garments Shoes Accessories (wallets, handbags) Saddlery (horses) Furniture

Spices (ex. pepper) Value Chain (preliminary draft - to be elaborated by stakeholders)**Shaded green areas are products that can be marketed in tourism sector**

Primary	Added Value (1)	By-products	Added Value (2)
Smallholder and commercial farms (raw produce)	Thrashing, semi/full drying, cleaning, mixing, grinding	Contaminated water/liquids, peelings, husks	Food additives Medicines Perfumes

Pepper Value Chain (preliminary draft - to be elaborated by stakeholders)**Shaded green areas are products that can be marketed in tourism sector**

Primary	Added Value (1)	By-products	Added Value (2)
Pepper berries (green, yellowish-green, orange-red)	Dried, dehydrated or preserved in liquid	Spike (pepper casing) Pericarp	Green pepper (canned, dehydrated or freeze-dried) Pepper oil Ground pepper

Bamboo Value Chain (preliminary draft - to be elaborated by stakeholders)**Shaded green areas are products that can be marketed in tourism sector**

Primary	Added Value (1)	By-products	Added Value (2)
Bamboo shoots Bamboo (mature)	Engineered bamboo Burnt bamboo, pulp	Offcuts, foliage	Composite boards/panels, Bamboo charcoal, Paper, cloth, flooring, weaving and craft products, furniture and cuisine

Q) How will all of the various characteristics of the selected green products be presented, discussed and assessed during the First National Stakeholder Workshop?

A) SWOT diagrams will be elaborated by stakeholders during the workshop to facilitate ideas on, and assessments of, the various products included in this paper.

SWOT Analysis

(generic example - to be elaborated by stakeholders for each product/sector)

Strengths	Weaknesses
<ul style="list-style-type: none"> - Highly skilled Ethiopian farmers - Rich value-added product possibilities - Growing modern food processing industry in Ethiopia - Support to entrepreneurs through incentives under GTP2 - ... 	<ul style="list-style-type: none"> - Limited in-country value-added production; reliance on raw commodity exports to foreign markets for processing - Insufficient infrastructure for transport and storage - Marketing and distribution network require improvements - ...
Opportunities	Threats
<ul style="list-style-type: none"> - Target higher income markets with high quality products, including though organic production - Improve linkages to tourism sector to export products through tourism - Improve quality and food safety to meet growing world quality standards - Add value across entire product line to motivate farmers to replant and to invest in production methods - ... 	<ul style="list-style-type: none"> - Pests and disease - Rising quality standards of high income export markets and of competing producer countries - Climate change over the longer term - ...

V. QUESTIONS FOR DISCUSSION BY NATIONAL STAKEHOLDERS

For each sector – Fisheries and Dates – discussions of the following topics can help identify parameters for the NGER's overall direction, its final report and its proposed national action plan:

1. Which niche market opportunities exist for these products?
2. What are the main factors preventing increased value added production?
3. Can export markets be diversified to increase output and earnings?
4. How can linkages with Ethiopia's tourism sector be more fully exploited by producers?
5. How can organic and fairtrade certification be advanced?
6. What are the institutional, financial and market constraints faced by producers?
7. How can the national and regional governments better support producers and intermediaries in getting products to export markets?
8. What can producers themselves do to improve cooperation and coordination?

VI. Endnotes

- 1 UNCTAD calculations based on data from UN Comtrade.
- 2 UNCTAD, 2011, Integration of developing countries in global supply chains, including through adding value to their exports.
- 3 The International Ecotourism Society, 2006, Global Ecotourism Fact Sheet.
- 4 Full text available online: <http://www.mofed.gov.et/English/Resources/Documents/GTP%20English2.pdf>
- 5 Capital Ethiopia, Ethiopia's Growth and Transformation Plan: The good & the bad, 13 February 2015.
- 6 African Arguments, Ethiopia: new cabinet, new plan, new direction? 21 October 2015.
- 7 Ethiopia's vision for a climate resilient green economy. Full document:
<http://www.epa.gov.et/Download/Climate/Ethiopia's%20Vision%20for%20a%20Climate%20Resilient%20Green%20Economy.pdf>. As presented at the Rio+20 Conference:
http://www.uncsd2012.org/content/documents/287CRGE%20Ethiopia%20Green%20Economy_Brochure.pdf.
- 8 Hamwey, R., Pacini, H., & Assuncao, L. (2013). Mapping Green Product Spaces of Nations. The Journal of Environment & Development, 155-168.
- 9 IBL and IFOAM, 2015, The World of Organic Agriculture Yearbook.