



United Nations Environment Programme



International
Trade
Centre



INTERNATIONAL CENTRE FOR TRADE
AND SUSTAINABLE DEVELOPMENT

DRAFT FOR DISCUSSION (18 JUNE 2012)

GREEN ECONOMY AND TRADE OPPORTUNITIES

EXECUTIVE SUMMARY¹

1. INTRODUCTION

This joint study, based on a partnership between the United Nations Environment Programme (UNEP), the International Centre for Trade and Sustainable Development (ICTSD), and the International Trade Centre (ITC), seeks to identify and assess the international trade opportunities associated with the transition to a green economy, and in particular how developing countries can increase exports to respond to international demand for environmentally-friendly goods and services. The study focuses on six key economic sectors considered to have a high potential to generate trade opportunities while contributing to the transition to a green economy: agriculture, fisheries, forests, manufacturing, renewable energy, and tourism.

UNEP defines a green economy as one that results in *“improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities”*.² Transitioning to a green economy is increasingly viewed as a pathway that can deliver low-carbon and climate-resilient development, significantly improved resource efficiency, healthy and more resilient ecosystems, and greater economic opportunities and social justice for disadvantaged groups. The transition to a green economy will not

be without its challenges. A number of previous studies have analysed the potential risks associated with the transition, including those related to trade protectionism.³ As noted in these previous studies, it is essential that a green economy transition is implemented in a fair, open and transparent manner to mitigate these risks. However, despite these risks, there are also a number of existing and future trade opportunities, which are the focus of this study.

If managed well, trade has the potential to drive the transition to a green economy by fostering sustainable resource use, generating economic opportunities and employment, and by contributing to poverty eradication. Currently, significant untapped trade opportunities exist and are expected to continue to expand in the future. In particular, export markets for green and sustainable food, products, services, energy and tourism, are expected to grow rapidly due to changing consumer preferences as the world becomes more environmentally aware. As consumer demand for green goods and services grows, so will the incentives for firms to produce them and adopt more efficient and sustainable manufacturing methods. It is crucial to identify these trade opportunities, together with the policy reforms that can promote and strengthen developing countries' capacity to benefit from them.

¹ The draft chapters of this Executive Summary are available at: <http://ictsd.org/i/events/dialogues/134108/>.

² UNEP (2011).

³ See, e.g. UNEP/UNCTAD/UN-DESA (2011) “The Transition to a Green Economy: Benefits, Challenges and Risks from a Sustainable Development Perspective”; or UNCTAD (2012) “RIO+20 Issues Briefs on Trade and the Green Economy”.

2. ASSESSING TRADE OPPORTUNITIES

Concrete trade opportunities in the context of a green economy transition can be identified across the following sectors.

A. Agriculture

Sustainable agricultural production has long been recognised and promoted as a system that encourages trade opportunities and is linked to the creation of rural employment, income generation, food security and long-term environmental security. Developing countries are well-placed to seize these trade opportunities because they have a strong comparative advantage in green agricultural products due to, among other things, suitable climatic conditions and rich biodiversity.

According to the International Federation of Organic Agriculture Movements (IFOAM), in 2010, the global organic market increased to US\$ 59 billion. While 80 per cent of organic producers are located in developing countries, 97 per cent of the consumption is in developed countries, creating substantial export opportunities. In particular, demand is increasing for high-value and value-added organic products such as juices, semi-processed vegetables, textiles, coffee and spices. Sustainably produced goods often command high price premiums, resulting in higher incomes for farmers and others in the supply chain.

Many developing countries in East Africa, for example, are already benefiting from the increasing export opportunities in sustainable agriculture. Uganda is currently the largest African exporter of organic products with an export value of US\$ 42 million in 2010.

Green agricultural practices can also improve developing countries' trade balances by reducing the need for costly imported inputs and by increasing exports of sustainable agrifood products. Furthermore, there is scope for the development of regional trade with neighbouring countries that can

process raw materials more sustainably and efficiently than developed countries, due mainly to the proximity of harvesting and processing units.

B. Fisheries

Demand for sustainable fish products (including organic, ecolabelled and fair trade products) has been gaining significant momentum in recent years. Consumers are increasingly concerned about how their food is produced and are willing to pay a premium to satisfy their desire for food that is healthy and takes into account environmental and social concerns. The procurement policies of large international food firms, including commitments to purchase fish from sustainable sources, are likely to further drive demand for certified fish products.

Trade opportunities also exist in terms of value-addition relationships. A 2008 study concluded that *“developing countries have yet to exploit the benefits from value addition gains associated with product certification”*.⁴ Certification, vouching for safety and/or quality, could enable more processing to occur in developing countries rather than exporting unprocessed products to developed country markets. Thus, there remains significant potential to deepen trade between developing countries. Further trade opportunities exist in the market for frozen organic fish and fish products, as well as aquaculture, given the growing demand in developed countries.⁵

Aquaculture has experienced an average growth rate of 6.6 per cent per year since the 1970s, and remains the fastest-growing animal food production activity in the world, accounting for nearly half of global food fish supply.⁶ Aquaculture practices are also becoming more sustainable. The Aquaculture Stewardship Council (ASC) is developing standards which are expected to form part of the world's leading certification and labelling programme for responsibly farmed seafood.⁷ Aquaculture operations that meet certification criteria will be able to use the ASC ecolabels on their products, thereby creating further export opportunities in developed country markets.

4 Food and Agriculture Organization (FAO). (2008). “Market penetration of developing country seafood products in European retail chains”. FAO Globefish Research Programme, Vol. 90, pp. 56.

5 Tsamenyi, M., and McIlgorm, A. (2010). “Opportunities and Challenges for Intra-ACP Trade in Fish and Fish Products”. Commonwealth Secretariat, London.

6 FAO (2010). “The State of World Fisheries and Aquaculture”. FAO Fisheries and Aquaculture Department, Rome.

7 Aquaculture Stewardship Council. Available at: <http://www.asc-aqua.org/index.cfm?lng=1>.

C. Forests

Trade and export opportunities in the forest industry include trade in certified or recycled timber products and non-timber forest products (NTFPs), such as food items and biodiversity services, and forest tourism.

Government regulations, such as the Lacey Act in the United States (US) and the Timber Regulation in the European Union (EU), as well as a number of public and private sector procurement policies and building initiatives that mandate or promote the use of legal or certified timber, are key market drivers in this sector. By conforming to regulations and standards, the forest industry can guarantee continued access to existing markets and seize export opportunities to enter new markets. In particular, the expansion of the market for certified wood creates export opportunities for many developing countries. Certification schemes include the Forest Stewardship Council (FSC), the Programme for the Endorsement of Forest Certification Scheme (PEFC), and the Rainforest Alliance. Demand currently outstrips supply, implying that export opportunities exist for companies that switch to using certified timber. Given the high cost of implementing certification schemes, attempts are being made to explore alternatives such as group certification, which would enable many more small-scale producers to take advantage of the export opportunities available for certified timber.⁸ Thus, there is significant scope for expanding certification in developing countries.

In addition, exports of biodiversity products provide incentives for the sustainable management of forests. Demand for biodiversity products is increasing and shows considerable potential for future export growth in a range of industries such as agriculture, pharmaceuticals, cosmetics, biopesticides, personal care and food additives.

One example of a country already exploiting these trade opportunities is Peru, which has one of the most important timber reserves in the world, with more than 73 million hectares of forests located mainly in the Amazon regions of the country. In 2010, Peru exported more than US\$ 500 million in timber and non-timber products, and the sector

has experienced steady annual growth of 13 per cent over the past five years.⁹ NTFPs exported by Peru include products derived from Algarrobo and Tara trees, as well as Brazil nuts produced and commercialised under organic, fair and biotrade sustainability standards. While the sustainable forest sector in Peru already contributes to the economic growth of the country and has a positive social and environmental impact, more investment would enable the forest industry to further capitalise on these export opportunities.

D. Manufacturing

Switching to more efficient manufacturing practices will save energy and thus enable developing countries to produce goods for export at a lower price. Overall in the global economy, significant untapped opportunities exist to produce wealth using less material and energy resources. Developing countries with emerging and expanding industrial infrastructures face particular opportunities to mitigate greenhouse gas (GHG) emissions while increasing their competitiveness by applying energy-efficient best practices from the outset in new industrial facilities and power stations.

In addition, there exists potential to generate new business from remanufacturing in developing countries. Remanufacturing is the generic term describing the process in which a recovered good is transformed through cleaning and other operations into a product that is tested and certified to meet technical and/or safety specifications and has a warranty similar to that of a new product. Establishing a domestic remanufacturing industry would pave the way for technology and knowledge transfer, increased employment and export opportunities.

Furthermore, companies, countries and regions that become leaders in green innovation, design and technology development, are more likely to retain and create new green jobs. This is likely to translate into significant market access and export opportunities for the early actors. Ecolabels can provide further opportunities to market sustainably manufactured products, particularly in light of the growing demand for green products in developed countries.

⁸ FAO (2005). "The State of the World's Forests". FAO Forest Sector. Available at: <ftp://ftp.fao.org/docrep/fao/007/y5574e/y5574e08.pdf>.

⁹ Lima Chamber of Commerce, www.camaralima.org.pe.

E. Renewable energy

The greening of the energy sector creates considerable export opportunities and access to new markets, particularly for developing countries that can “leap-frog” outdated infrastructure and technologies, investing directly in the technology of the future. Growing trade opportunities exist for the export of raw materials or components for renewable energy supply (RES) products, or of finished RES products. Developing countries have experienced growth in the export of RES products, in particular, solar panels, wind hydraulic turbines and solar water heaters. In some cases, developing countries may be able to take advantage of preferential access to markets in developed countries,¹⁰ or government policies such as feed-in tariffs which encourage imports from abroad.

As an example, India’s renewable energy policies have led to dramatic growth. By focusing on the mature wind energy sector, India is now the fifth largest installer of renewable energy in the world. In addition to providing significant internal socio-economic growth, the sector offers key export opportunities with sales of wind turbines and related equipment approaching US\$ 1.5 billion in 2011.

Another export opportunity is trade in energy derived from renewable sources. Many developing countries have abundant renewable energy resources, including solar energy, wind power, geothermal energy, biomass and hydro. Surplus capacity will create opportunities for developing countries to sell electricity to their neighbouring countries. Furthermore, by developing such energy sources, developing countries can diversify their energy portfolios, reduce their dependence on fossil fuels imports, and make safe and clean energy available to the poor.

Additionally, export opportunities exist for biofuels which, unlike most forms of renewable energy, can be traded on a large scale between nations. Large potential for production and export exists in several developing countries. Sustainability criteria, drawn

up in response to environmental and food safety concerns, can promote the biofuel sector over the long-term.

It is anticipated that second-generation biofuels produced from agricultural and forestry residues will be able to play a crucial role in the transport sector without competing with food production. By 2030, 10 per cent of the global agricultural and forestry residues could provide roughly 50 per cent of biofuel demand.¹¹ Thus, significant export opportunities are likely to emerge for second-generation biofuels as production in developed countries is expected to fall short of domestic demand.

F. Tourism

Tourism is a key driver of growth for the world economy. International tourist arrivals are on track to reach one billion in 2012 and expected to reach 1.56 billion by 2020. The sheer size and reach of the sector makes it critically important from a green economy perspective. Small changes towards greening, such as more efficient use of energy and water and better waste management, can have large impacts. In particular, evidence suggests that investment in greening the tourism sector generates significant financial returns and that tourists’ choices are increasingly influenced by sustainability considerations, demonstrating in particular a preference for companies that implement best practices in their environmental management.

Many tourism operators are also focusing on the growing sub-sector of ecotourism (or tourism in natural surroundings) that provides travel activities that encourage environmental protection and social development. According to the International Ecotourism Society, 83 per cent of developing countries rely on ecotourism as a major source of export revenue. As awareness of the fragility of the world’s most diverse cultures and environments continues to increase, the tourism industry is shifting towards ecotourism, which is the fastest growing sector of the industry, and particularly beneficial to many developing countries given their natural endowments.

10 E.g. the EU’s Generalised System of Preferences (GSP) scheme or the US’s African Growth and Opportunity Act (AGOA).

11 International Energy Agency. “Did you know?”. Available at: <http://www.iea.org/journalists/fastfacts.asp>.

Finally, the greening of the tourism industry provides further opportunities, particularly for activities such as scuba diving, recreational fishing and whale watching, all of which have great potential for expansion.

3. ENABLING CONDITIONS

A number of enabling conditions can pave the way for the success of public and private actions in greening the world's economies and increasing export opportunities.

The study highlights several domestic efforts that could contribute to the development of green export opportunities including:

Providing support to exporters to enable them to meet standards in export markets: it is important to engage with the domestic industry to explain international standards and regulations and to assist in identifying and obtaining the required equipment and training. Specific opportunities may arise for supporting domestic firms seeking joint ventures with foreign firms. Countries may also consider developing accredited domestic bodies and laboratories in order to facilitate the testing and certification of goods.

Creating/maintaining and enforcing a stringent domestic standards regime compatible with international standards: new environmental rules and regulations are an important means of building up the domestic industry so that it can prosper in demanding export markets.¹² Clear and well-enforced national and international environmental policies in conjunction with increased consumer preferences for “green products” have, in fact, spurred the development of a global market for cleaner technologies and products with reduced environmental impacts.¹³

Changing fiscal policy and employing new market-based instruments: environmentally harmful subsidies, which can be a deterrent to investment in green technologies, could be reformed or phased out. However, in select circumstances and over

defined periods, rational use of certain subsidies can facilitate the transition to a green economy, e.g. subsidies in renewable energy technologies can help these technologies compete with fossil fuels. Moreover, taxes and other market-based instruments (e.g., green public procurement) can be used to stimulate the necessary investment and innovation for funding the transition.

Promoting innovation: investment in education and training, support for research and development (R&D), and the provision of financial support for demonstration projects can be particularly important to enable a fair, but competitive environment for green innovation. Government intervention can be a significant means for fostering innovation and for choosing the direction of change.¹⁴

Identifying and reducing non-tariff barriers to imports of environmental goods and services (including through regional and bilateral trade agreements): easier access to environmental goods and services will allow domestic companies to produce more efficiently thereby increasing their competitiveness, while addressing key environmental priorities.

Investing in infrastructure development and reallocating public and private investments to build up or enhance natural capital: investments in infrastructure for the rapid transition to a greener economy, as well as investments in natural capital such as forests, water, soil and fish stocks, are particularly important for the rural poor.

Agreeing upon nationally appropriate and ambitious targets for renewable energy production, together with incentives such as quotas or feed-in tariffs: this will provide the green private sector with certainty as to the future regulatory environment.

The required domestic enabling conditions will vary according to the particular needs of specific countries and should focus on practical ways of building capacity and skills to facilitate a transition

12 Yu, W., Alam, M., Hassan, A., Khan, A.S., Ruane, A.C., Rosenzweig, C., Major, D.C., and Thurlow, J. (2010). *Climate Change Risks and Food Security in Bangladesh*. World Bank, Washington, D.C..

13 Hesse, D. (2007). Environmental Policy and International Competitiveness in a Globalizing World: Challenges for Low-Income Countries in the UNECE Region". UNECE, Geneva.

14 Stoneman, P., (ed.). (1995). "Handbook of the Economics of Innovation and Technological Change". Blackwell; Foray, D. (ed.). (2009). "Innovation Policy for Development: A Review". Elgar.

to a green economy. It is important to note that in many developing countries implementation of these domestic enabling conditions may require international support. In particular, for countries with low financial and technical capacity, support from the international community may be needed to capture the full potential and avoid the risks of green structural change.¹⁵

As well as providing support to developing countries to enable them to take advantage of growing green trade opportunities, there exist additional enabling conditions through which action at the international level can provide a more open and fair international framework, such as:

Concluding the World Trade Organization (WTO) Doha Development Round on: (i) reduction or elimination of tariffs and non-tariff barriers to trade in environmental goods and services, and (ii) discipline of fisheries and agriculture subsidies.

Agreeing on other WTO opportunities: for example, on what is acceptable in the pursuit of a green economy with respect to process/production method (PPM)-based measures and with respect to subsidies designed to promote green initiatives (including the possible revival of non-actionable subsidies as a category in the WTO Agreement on Subsidies and Countervailing Measures (SCM Agreement)).

Creating an agreement on a joint effort to bring new technologies more quickly to the market: for example, by global demonstration programmes, open innovation schemes, domestic commitments to make public research common intellectual property, international R&D, publicly backed patent pools, support for financing, etc.¹⁶ This could also include support of the World Intellectual Property Organization (WIPO)'s development agenda, including the transfer and dissemination of renewable energy technologies.

Harmonising or granting of equivalency of standards: it is important to ensure that standards and labelling schemes for sustainable producers do

not effectively exclude developing country producers from export markets. International standards and labelling schemes could be used as opportunities to document and promote good practices by developing country producers. Support could be provided to enable producers to meet standards in export markets. Establishing equivalencies between standards will further reduce the costs for exporters to enter developed country markets. Furthermore, there should be greater participation by developing countries in standards setting.

Promoting public awareness: in all countries, increased emphasis should be placed on the importance of public awareness and education initiatives to address consumer demand for sustainable food, products, and services. Investments in consumer-orientated programmes that focus on nutritional health and the environmental and social equity implications of dietary behaviours and consumption decisions could encourage global demand for sustainably produced food and products.

Facilitating market access for the green sectors: developing countries could benefit from greater assistance from the Aid-for-Trade initiative and the Enhanced Integrated Framework to overcome supply-side and trade-related infrastructure constraints and benefit from enhanced market access opportunities.¹⁷

Increasing green investments from international finance institutions and national development banks and developing additional innovative mechanisms and tools: examples of this include the Green Climate Fund, Payments for Ecosystem Services (e.g., the Programme on Reducing Emissions from Deforestation and Forest Degradation or REDD), and environment, social and governance reporting.

Strengthening integration of the sustainability agenda in trade between developing countries: this could include tapping into growing regional markets.

15 Cosbey, A. (2011). "The Transition to a Green Economy: Benefits, Challenges and Risks from a Sustainable Development Perspective". Second Preparatory Committee Meeting for United Nations Conference on Sustainable Development. UN-DESA, UNEP and UNCTAD. Available at: <http://www.uncsd2012.org/rio20/index.php?page=view&type=400&nr=12&menu=45>.

16 Cosbey (2011).

17 World Trade Organization. (2011). "Harnessing trade for sustainable development and a green economy". Available at: http://www.wto.org/english/res_e/publications_e/brochure_rio_20_e.pdf.

Many of these domestic and international recommendations may be difficult to accomplish, and unless sufficient resources are dedicated to the effort, progress will be extremely challenging. International trends show that sustainable goods and services have become increasingly important in terms of markets – however, countries that do not implement the necessary enabling conditions to a transition to a green economy may not be able to take advantage of the opportunities available and will remain dependent on the current unsustainable system.

4. CONCLUSION

A shift to a green economy will yield significant environmental and social benefits. It will also maintain and create many economic benefits, particularly

by creating the right conditions for countries to expand their presence into new markets. Part of this stems from the rise in technical regulations and regulatory regimes in most developed countries' markets.¹⁸ In all of the six sectors analysed, the key driver for international trade opportunities is changing consumer demand in developed countries. Furthermore, due to the growing wealth and changing consumer preferences in both developed and developing countries, as well as the growth of cross-border trade (facilitated by regional economic entities), consumer demand for sustainable goods and services is likely to significantly increase in the medium and long term. However, creating and taking advantage of these green export opportunities will require a sustained effort on the part of world leaders, civil society and leading businesses to collaboratively engage in the transition to a green economy.

¹⁸ For example, in the EU, the following pieces of new legislation have been adopted in the past decade: The Restriction of Hazardous Substances (RoHS) Directive (2011/65/EU), the Waste Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC), the Regulation concerning the Registration, Evaluation, Authorisation and the Restriction of Chemicals (REACH) (1907/2006/EC) and the Ecodesign Directive (2009/125/EC).

