



# Stimulating Green Growth through Donor-Business Partnerships in Developing Countries: Filling the Evidence Gap

## SCOPING REPORT

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# 1 Introduction

Achieving 'green growth' – or more environmentally sustainable and socially inclusive forms of growth, which is our definition of green growth for the purposes of this paper - is the new global imperative, and will provide the backdrop for the whole international development agenda going forward. The achievement of green growth will be challenging, and collaboration between the public and private sector will be essential. This scoping report discusses different models of partnership between donors and businesses to promote green growth, and presents a number of examples of different kinds of approaches that have been adopted.

By partnership, we refer to an arrangement whereby an individual business or group of businesses works with one or more donors in a joint project or programme to deliver a specific outcome. Alternatively, it could include initiatives which are set up to facilitate a number of partnerships between business and donors such as the Business Innovation Facility, Challenge Funds, or the Business Call to Action.

The paper reviews a series of case studies drawn from developing countries around the world, showcasing different partnerships adopted between business and donors. We have reviewed partnerships established in a range of different relevant sectors, including agriculture, energy (incl. energy generation and energy efficiency), forests, disaster reduction, water supply (incl. sanitation), recycling/waste management, green buildings construction, transportation, heavy industry and manufacturing, and some cross-sector issues.

The paper first provides a brief introduction to the concept of green growth and its relationship with developing countries. This is followed by a description of different types of donor-business partnerships, and a brief discussion of the pros and cons of the different approaches. The case studies of donor-business partnerships to promote different aspects of green growth are then presented, to illustrate the kinds of opportunities and partnership arrangements that exist. The report concludes by summarising findings from selected literature on opportunities for donor-business partnerships and green growth.

## 2 Green growth and developing countries

The biggest question facing the development community today is whether (and how) environmental goals can be reconciled with growth and poverty reduction in the developing world. The concept of "green growth" focuses on how opportunities for more inclusive growth in developing countries can be achieved while conserving the environment.

Developing countries are the key to achieving global green growth. Although today most developing countries contribute only minor shares to global greenhouse gas (GHG) emissions, their emissions will increase if they follow the same path to economic growth as developed countries have followed. Increasingly developing countries are becoming sources of global economic growth, but accompanied by growing emissions and more intensive use of natural resources. The potential socio-economic impacts of environmental degradation are particularly serious for developing countries given their dependence on natural resources for economic growth and their vulnerability to energy, food, water scarcity, climate change and extreme weather risks. All these factors are challenging their ability to develop.

Developing countries have the greatest opportunities for capitalising on the synergies between environmental and economic sustainability. A green growth approach is the chance for emerging and developing economies to leapfrog unsustainable and inefficient production and consumption patterns. They can factor environmental issues into their infrastructure investment decisions and can further develop agriculture and other natural resources in a way that improves livelihoods, creates jobs, and reduces poverty, while ensuring sustainability of the approaches adopted. They are less constrained than developed countries, which are now locked into investment choices and sunk capital from previous decades. Sufficient financing and capacity would enable developing economies to invest for the long term in the infrastructure and networks required to facilitate a sustainable development path.

Collaborations between developed and developing countries are essential in efforts to move towards global green growth. But there is no “one-size-fits-all” prescription for implementing a green growth strategy. National development strategies must be based on each country’s strengths, bottlenecks and constraints. Developed, emerging and developing economies will have to cope with different challenges and opportunities in greening growth, as will countries with differing economic and political circumstances. (OECD, 2012)

### 3 Categorising donor-business partnerships

The past 15 years have seen an expansion in collaboration between donor agencies and companies. A number of different approaches to implementing donor-business collaboration have emerged. As the UN Global Compact suggests, archetypes of donor-business partnership can be classified by the number of actors involved. Here we discuss three categories: a one-to-one approach; a multi-stakeholder approach; and a platform approach.

#### 3.1 One-to-one approach

Many donor-business partnership projects are designed to support interaction between a single donor and a single company. The donor usually contributes a portion of the project’s financing, contacts on the ground, and development know-how, while the company contributes its economic power, technical expertise, and operational capacities as its core business to provide public goods, infrastructure or services for a profit. (HLF4, 2011) This approach often addresses a specific challenge within the company’s value chain that also has social and/or ecological impacts.

As an example, a company might encounter problems in finding qualified employees, and choose to collaborate with a donor to finance and organise vocational training. (UN Global Compact, 2011). Another example could be the fact that some companies may come across barriers in product development. A one-to-one partnership may involve donor support to promote early-stage product development enabling critical research and development activities, and supporting project developers and trial projects. (3GF, 2012).

<b>One-to-one partnership</b>	
<b><u>Player</u></b>	<b><u>Roles</u></b>
<b>Business:</b>	Core business, investment and implementation partner
<b>Host government:</b>	Regulator, partner
<b>Donors:</b>	Support to or capacity building of government to implement its role
<b>Civil society:</b>	Advisors, representatives of stakeholder groups in governance structures

(HLF4, 2011)

#### 3.2 Multi-stakeholder initiative

Some challenges are too complex or too big to be addressed solely by one company or one donor. Often, no single player can make a difference in a particular market due to coordination problems. A classic example can be drawn from the agricultural field. Farmers will not invest in seeds or irrigation until they have a market to sell their products, while buyers will not create a market where there is limited supply. Donors and businesses can collaborate through multi-stakeholder initiatives to overcome these challenges through joint efforts. Businesses combine their resources and competencies to develop the community or wider society in

which it operates: for the management of risk, reputation and social/legal license to operate, and to have the social, business and physical infrastructure to operate effectively. (HLF4, 2011)

Coordinated approaches can bring together the various elements of a value chain to enable the creation of a new market; and actors from relevant industries can work together to overcome initial network effects. These approaches also combine logistical capabilities, infrastructure, local networks, and project management expertise which no single organisation possesses alone (3GF, 2012). Donors may act as brokers and coordinators in such multi-stakeholder initiatives, while the business sector implements the projects (UN Global Compact, 2011).

<b>Multi-stakeholder/Cross-sector partnership</b>	
<b><u>Player</u></b>	<b><u>Roles</u></b>
<b>Business:</b>	Partner (potentially both financial and implementing)
<b>Host government:</b>	Partner (potentially both financial and implementing); champion; regulator (usually only light touch if necessary at all)
<b>Donors:</b>	Partner (potentially both financial and implementing); facilitator/broker; partnering capacity builder
<b>Civil society:</b>	Partner; champion; advisor
	(HLF4, 2011)

### 3.3 Platforms for achieving global development goals

An important trend during the past decade has been the establishment of new multilateral platforms for achieving particular global development goals. Some were established as, or became, independent entities, and others are housed within existing public or non-profit institutions. Many are global, and others are regional or sector-specific. Donor agencies often fund, organise or govern these platforms. They act as a focal point for companies and other stakeholders, enable coordination, spread know-how, and have the ability to catalyse collective action and systemic approaches. They are especially valuable in channelling the philanthropic activities of companies in such a way to increase their effectiveness, by combining the resources and capabilities of many players (UN Global Compact, 2011).

Some of these platforms focus on mobilising private capital or innovative funding mechanisms, harnessing market forces, overcoming market failures and/or addressing governance gaps to achieve greater scale in tackling complex, systemic challenges in global food security, climate change mitigation and adaptation (Nelson, 2010). A notable example related to green growth is the Alliance for a Green Revolution in Africa – all of whose operations have been catalysed by funding from public donors, corporations and philanthropic foundations such as the Bill & Melinda Gates Foundation and the Rockefeller Foundation.

Other multilateral platforms concentrate on improving sector-wide accountability and transparency for social, environmental and human rights performance in industries and supply chains that have a major influence on development, such as extractives, manufacturing, agriculture and construction. Examples include the Extractive Industries Transparency Initiative and the Voluntary Principles on Human Rights and Security, which focus on oil, gas and mining; the Equator Principles, which focuses on project finance; the Marine Stewardship Council, which focuses on fisheries; and many fair trade and sustainability certification programmes in agriculture and consumer goods. For oil, gas and mining sectors, the Global Greenhouse Gas Flaring Reduction Partnership (GGFR) was set up and led by the World Bank. (See the box about GGFR below.)

Business-led coalitions have provided an increasingly important platform for convening multi-stakeholder initiatives and mobilising business sector engagement in development. They include the World Economic Forum, the World Business Council for Sustainable Development, the International Business Leaders Forum, and the Initiative for Global Development and Business Action for Africa.





### **Global Gas Flaring Reduction Partnership (GGFR)**

The World Bank's GGFR public-private partnership was launched at the World Summit on Sustainable Development in Johannesburg in 2002. GGFR supports the efforts of oil-producing countries and companies to increase the use of associated natural gas and thus reduce flaring and venting, which wastes valuable resources and damages the environment.

**Mission:** The GGFR partnership is a catalyst for reducing wasteful and undesirable practices of gas flaring and venting through policy change, stakeholder facilitation and project implementation.

**Partners:** The World Bank Group, European Union, Algeria (Sonatrach), Angola (Sonangol), Azerbaijan, Cameroon (SNH), Ecuador (PetroEcuador), Equatorial Guinea, France, Gabon, Indonesia, Iraq, Kazakhstan, Khanty-Mansiysk (Russia), Mexico (SENER), Nigeria, Norway, Qatar, the United States (DOE) and Uzbekistan, BP, Chevron, ConocoPhillips, ENI, ExxonMobil, Marathon Oil, Maersk Oil & Gas, Pemex, Qatar Petroleum, Shell, Statoil, TOTAL and Wärtsilä (Associated partner)

**Approach:** GGFR partners have established a collaborative Global Standard for gas flaring reduction. This Global Standard provides a framework for governments, companies, and other key stakeholders to consult with each other, take collaborative actions, expand project boundaries, and reduce barriers to associated gas utilization. Poverty reduction is also an integral part of the GGFR programme, which is developing concepts for how local communities close to the flaring sites can use natural gas and liquefied petroleum gas (LPG) that may otherwise be flared and wasted. The programme has already evaluated opportunities for small-scale gas utilisation in several countries.

*Source: Excerpt from World Bank (2012) (World Bank, 2012)*

#### **Example of projects supported:**

##### *Less Gas Flaring in Niger Delta in Exchange for Carbon Credit*

**Background:** Due to a weak domestic market and lack of important gas-gathering infrastructure, Nigeria burns off large quantities of its natural gas associated with oil production, producing vast amounts of global-warming emissions and harming the health of local populations.

**Project description:** Italian company ENI built 450 megawatt gas-fired power plant in 2006 at Kwale in the Niger Delta. Key to making this \$400m investment commercially viable was qualification for carbon credits under the Kyoto Protocol, made possible by technical advice and other support from the World Bank-led Global Greenhouse Gas Flaring Reduction partnership.

**Impacts:** By 2012, 7.5 million tonnes of carbon emissions will have been avoided. In its first ten years, the project is expected to avoid pollution equivalent to taking 2.7 million cars off U.S. roads. Kwale was the first project in Nigeria to qualify for carbon credits under the (Kyoto) Clean Development Mechanism project. It provides much-needed investment in a troubled region and can potentially be replicated in other countries.

*Source: Excerpt from DCED (2012) (DCED, 2012)*

## 4 Comparison of the different partnership approaches<sup>1</sup>

### 4.1 One-to-one approach

Under the one-to-one approach, there are only two parties in a development partnership, i.e. a development agency and a single company. Compared with multi-stakeholder or multilateral partnerships, the project design under a one-to-one approach is relatively simple, the collaboration quite straightforward and implementation more efficient. The timeline of these projects tends to be shorter, say a few months to a few years at most. The length of time taken for bipartite negotiation is shorter as well. As there is no need to set up a governance structure or procurement regime that involves many players, the administration cost is lower than other approaches. If the partnership is carried out well, immediate benefits to the aid-recipient community can be achieved within a short period of time.

However, the one to one approach has been criticised for various reasons: it benefits one company, thereby potentially distorting the market; it wastes resources if the company project fails; and it increases the risk of failure where more players are required to create a market. The latter challenge is especially pronounced in LDCs, where markets sometimes need to be built from scratch. In many cases, establishing new markets or value chains require the contribution of more than one player. Undertakings of this nature require coordination and, in some cases, multi-stakeholder solutions. (UN Global Compact, 2011)

### 4.2 Multi-stakeholder initiative

A multi-stakeholder initiative can address more complex and advanced development challenges e.g. by tackling various barriers to progress simultaneously, overcoming coordination failures, or creating a new market for certain sustainable products/services as joint efforts can optimise an existing value chain. Resource efficiency or economies of scale are also more likely to be achieved when different players contribute the resources in which they have relative advantage.

The time span of a multi-stakeholder initiative is often longer than a one-to-one partnership. Also, longer commitments with clear, plural development objectives, with the additional flexibility to react to the risk of failures and changes in the project plan, may be able to attract more companies interested in having a long-term impact rather than those focused on less ambitious short- to medium-term trade partnerships or cooperation.

Compared with a one-to-one approach, involvement of more actors means multi-stakeholder initiatives are more complex in programme design and implementation. As players often have different mentalities or come from different cultures, it takes a longer time to negotiate and achieve the necessary compromise. So it may take a longer time for a complex project to achieve tangible benefits for the recipient community in a developing country. Administration costs are also likely to be higher.

### 4.3 Platforms for achieving global development goals

A global platform can involve a lot more players, including donors (development agencies), multi-national corporations, local businesses, social enterprises, NGOs and charitable foundations from a variety of sectors and countries, in pursuit of broader development goals in a cross-border setting. On a global platform, various one-to-one and multi-stakeholder partnerships could be incubated and executed. Like multi-stakeholder initiatives, global platforms are more able to address more complex and diverse regional and international development challenges under one or more specific themes. Since the projects organised and funded through these global platforms usually cover much larger populations or areas than the two approaches evaluated above, can potentially achieve much larger or more systemic development impacts.

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<sup>1</sup> Most of the pros and cons outlined in these two sections are based on and re-organised from the report by the UN Global Compact (2011).

Akin to multi-stakeholder initiatives, collaboration projects organised through global platforms often enjoy an even longer time span with more stable funding, owing to the joint resource support from a variety of public and private sector players which might cross-subsidise or cross-complement different sub-projects under a bigger regional programme. A longer time span can provide greater certainty and a critical mass that attracts more businesses to participate in cross-border projects aiming at higher developmental and environmental impacts.

One of the problems with the first two approaches is that even though donors support the local private sector via their private-sector development (PSD) programmes they keep these engagements largely separate from their collaboration programmes. PSD has developed over decades from the bottom up, whereas high-profile, high-impact collaborations with multinational companies have been triggered through high-level debates on global governance. Breaking down these divides through global platforms may prove particularly beneficial for private-sector engagement in developing countries. (UN Global Compact, 2011)

Because of the larger number of players involved in a global platform, the project design, outreach, implementation and evaluation demonstrate the greatest degree of complexity amongst the three approaches evaluated here. A global platform often involves the establishment of a complicated, hierarchical governance structure to ensure sufficient legitimacy and representativeness.

## 5 Selecting and categorising case studies

For this scoping exercise, we have drawn case studies of donor-business partnerships from a number of key sectors which present good opportunities for green growth: energy, agriculture, forest, disaster reduction, water supply (including sanitation), recycling/waste management, green building construction, transportation, and heavy industry and manufacturing. We have then categorised them into the three types of partnership set out above, as set out in the matrix below.

### 5.1 Principles of case study selection

The theme of this report is donor-business partnerships for green growth. Case studies are therefore selected based on two principles below:

#### *Demonstration of adaptation and/or mitigation efforts*

Case studies should –

- Deal with the issues of adaptation and/or mitigation, considering that problems climate change triggers are barriers to the development of developing countries;
- Promote development of the sector(s) of focus, giving due consideration to climate change and the environment in order to facilitate economic growth in a balanced or innovative manner;
- Reflect Nationally Appropriate Mitigation Actions (NAMAs) and National Action Programmes (NAPs) of the host country;

#### *Enhancement of partnership between public and private sector*

Meanwhile, case studies should also –

- Demonstrate a strategy of collaboration between public (donor) and private (business) sectors to increase private investment to and within developing countries by using public finance or financial aid as leverage; or
- Enhance partnership between public and private stakeholders to stimulate job creation and sustain employment opportunities.

### 5.2 Categorisation of case studies

The following matrix cross-lists and categorises selected case studies under different sectors and different partnership approaches.

	One-to-one approach	Multi-stakeholder initiative	Platforms for achieving global development goals
Agriculture		Unilever sustainable tea in Kenya	
Energy	Micro-Hydro Scheme around Mt Mulanje, Malawi	Solar energy in Tunisia (The PROSOL programme)	World Bank-led Global Gas Flaring Reduction Partnership*
Forest	Planting trees and reducing greenhouse gases in Tanzania		
Disaster Reduction		Ethiopia Drought Insurance Pilot Project	
Water supply (including sanitation)		Community-led water quality management in Egypt	
Recycling / Waste management	Post-consumer plastics recycling system for Tanzania  Co-processing of waste materials in Cement Production	Incubating solid waste management co-operatives in India	
Green building construction	Affordable green housing in Mexico City		
Transportation		Fuel-cell bus commercialisation in China	
Heavy industry & manufacturing	Investing for an energy-efficient chemicals sector in Russia		
Cross-sector		SAGCOT – Clustering small-holder production into a transnational agricultural corridor	

## 6 Case studies on donor-business partnerships

This section sets out a number of case studies of donor-business partnerships designed to promote different aspects of green growth. In each case the objectives and rationale of the partnership are discussed, the contributions made by the different partners are described, and any available information evaluating the impact of the partnership is provided. This evaluation information is based on publicly available information about the partnership, sometimes produced by the partners themselves. Thus it does not necessarily constitute an independent evaluation of the success or impact of the project, and has not been verified or validated by the author of this report.

### 6.1 Unilever sustainable tea in Kenya

Commodity value chains around the world are increasingly stressed, which is due to myriad social, environmental and economic challenges linked to the finite nature of natural resources and rapidly growing populations. Tea is one of the key commodity value chains. Unilever, the Anglo-Dutch food & beverage company, in partnerships with the UK's Department for International Development, the Dutch Sustainable Trade Initiative and supported by the Rainforest Alliance, Kenya Tea Development Agency (KTDA) and Oxfam, introduced a transformative initiative to make its own tea value chain sustainable. Starting with the Lipton brand in Kenya, it is gradually rolling out in other regions of the world.

#### Objectives of the partnership

Against the serious repercussions of unsustainable farming practices on the environment and in grower communities presenting operational and reputational risk to the business, Unilever partners with the IDH's Tea Improvement Projects, which aim at addressing bottlenecks in tea production that hinder tea smallholders from implementing sustainable farming practices. The project is to demonstrate the economic value of good sustainable agriculture practices to the smallholder farmers, consistent with the MDGs for poverty reduction and sustainable environment and also helping improve the trading and financial system.

For the business, the rationale is to reduce the cost of tea production in smallholdings by fine-tuning inputs. From the environmental point of view, it is to reduce negative impacts of tea production on the Kenyan ecology. For local communities, it is to maintain product value in all KTDA traditional markets; facilitate recognition of KTDA farmers by important customers and; enhance farmer earnings through alternative crops such as fuel wood. (CSR Europe, 2012)

#### Rationales of major partners

**Unilever:** It recognises the challenge of risk management throughout its agricultural supply chain, as it is becoming increasingly observable that governments, consumers and campaigning organisations expect companies to take responsibility for a range of issues within the supply chain owing to the intensified media attention and public debates on food sourcing and the way it is produced.

**DFID/IDH:** The pressures of natural resource depletion and expanding populations threaten not only the raw material supply for key industries such as food & beverage and textiles, but also the livelihoods of tens of

PROJECT DETAILS	
<b>Year</b>	2006 -09 (Pilot project with DFID); Since 2009 (New project with IDH)
<b>Donors</b>	UK Dept. of International Development  Dutch Sustainable Trade Initiative (IDH)
<b>Key Business Partners</b>	Kenya Tea Development Agency (KTDA); Unilever (Lipton); Rainforest Alliance
<b>Country</b>	Kenya
<b>Green Growth Sector</b>	Agriculture
<b>Partnership Approach</b>	Multi-stakeholder initiative
<b>Further info</b>	<a href="http://www.idhsustainabletrade.com/">http://www.idhsustainabletrade.com/</a>

millions of people and the natural resources on which they depend. Therefore, solutions are actively sought to render commodity value chains more sustainable. (Braga & Lonescu-Somers, 2010)

### Description of activities involved

Unilever commits the company to sourcing all of Lipton tea bags from Rainforest Alliance Certified™ farms at a premium price by 2015; it purchases around 12% of the world's black tea supply. The partnership with the Rainforest Alliance (RA), an international environmental organisation, guarantees that all the farms are certified. The company considered RA to be the most appropriate because of its comprehensive approach towards sustainable farm management, which covers social, economic and environmental aspects. (CSR Europe, 2012) To enhance farmers' commitment and the sustainability of the programme, Unilever engage the farmers by setting up Farmer Field Schools (FFS), in partnership with DFID and KTDA, where smallholder tea farmers are trained about sustainable agricultural and management practices (tea cultivation) required for RA certification in groups, in the field, through a participatory approach.

### Contributions of each party to the partnership

Unilever has recognised that no single entity can solve the complex issues around conversion of the tea value chain on its own. A partnership with RA for its certification of tea plantations and other donors for funding support can accelerate a transformation to sustainable Unilever tea products. Concurrently, they have built an effective, ground-breaking approach to communicating this shift effectively to tea-drinkers without undermining its consumer base. Specific contributions of each party include:

**DFID/IDH:** DFID and IDH provided financial support, amounting to £509,000 (€648,500) and €900,000 respectively. Partners made match funding for various activities in the recipient country.

**Unilever:** The Company provides implementation support by co-managing project, facilitating training, supporting KTDA through the provision of its key global and Kenyan personnel and assets worth £449,000 (€572,000). It also directly contributes to RA's origin development programme.

**KTDA:** The Agency provides implementation support at local level. It co-manages the project and facilitates the training in FFS and contributes directly to RA certification with its key technical personnel at Head Office and factory level (worth £224,000 (€285,400)) responsible for demonstrations and conducting field days.

**Rainforest Alliance:** It provides expertise for training services on the Sustainable Agriculture Network standard and RA Certification services for 20 KTDA factories. (Braga & Lonescu-Somers, 2010)

### Evaluation of the success or impact of the partnership

**Development impacts:** Globally, there is around 15% of tea coming from certified farms, representing good progress towards their goal of full certification for tea bags by 2015. Lipton's commitment to procure its tea exclusively from RA-certified farms, together with the premium price paid for certified tea, gave farmers a strong incentive to engage in the certification process. By mid-2010, 36,000 smallholders were certified. The certification led to benefits such as a 5% to 15% increase in yield through better agronomic practices. With increased income, farms invested in a variety of improvement measures, including protective suits for workers dealing with agrochemicals, waste water treatment equipment and micro-hydroelectric schemes.

**Business impacts:** Certification of farms has become a new marketing strategy resulting in supply chain security and reputational benefits. As at late 2009, about 80% of Lipton Yellow Label tea bags on sales in Western Europe were sourced from RA-certified farms. The Rainforest Alliance seal won Unilever a contract to supply tea for McDonald's in several European countries. Its market share increased in key European markets. (CSR Europe, 2012)

**Environmental impacts:** Better agricultural practices have improved productivity with better controlled inputs and at lower costs. Kenyan communities now enjoy a healthier local environment where 40,000 native trees have been planted and preserved, riparian areas conserved, and water resources protected. (Mitel, 2011)

The case study demonstrates a tangible framework for a "systems solution" to the complex sustainability dilemmas around tea production. It succeeded in impacting an entire commodity value chain far beyond the activities of the actual company involved. This example shows how a company, by carefully building multi-dimensional business cases for sustainability and strategic execution plans that account for the specific challenges of sustainability and partnerships, can grasp opportunities and forge new markets. It also shows how a company can become the first mover and leader in contributing to more sustainable business models,



stimulating multiple local environmental, social and economic pay offs while simultaneously ensuring the financial and longer-term sustainability of their core business.

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## 6.2 SAGCOT – Clustering small-holder production into a transnational agricultural corridor

The Southern Agricultural Growth Corridor of Tanzania (SAGCOT) is a new public-private partnership among local and international businesses, donors and the Tanzanian Government with the objective of transforming the country’s agriculture into a highly productive sector and an engine of economic growth in Tanzania’s south-central “granary” region. Alongside its huge agricultural potential, the SAGCOT region is also characterised by its high levels of poverty, extensive forests, wildlife, and protected areas, and increasing vulnerability to climate change. The Tanzanian economy is heavily dependent on its climate, therefore major weather events such as drought lead to a loss of crops and livestock, reduce hydro-power generation and electricity supply, and reduce industrial production, disturbing millions of livelihoods. These conditions favour the development of SAGCOT as a green growth model for agricultural-led development. (World Economic Forum, 2012)

Launched in 2010 during the World Economic Forum in Dar es Salaam, the initiative has developed an investment blueprint that envisions clusters of profitable agricultural farming and services businesses, with major benefits for domestic food supply, export earnings, smallholder farmers, and local communities. To advance market development, SAGCOT promotes the commercialisation of smallholder production by fostering the creation of clusters. A cluster is an interconnected grouping of farming and processing businesses. Each cluster needs coordinated investments in infrastructure, value chains, farming systems and human capital. It is hoped that innovative financing mechanisms, which include a multi-donor catalytic investment fund, will leverage over US\$2 billion of private investment.

### Objectives of the partnership

As a stimulus for a major revival of agriculture in the southern corridor of Tanzania and the wider region, SAGCOT’s objective is to nurture inclusive, commercially viable agribusinesses which would benefit the region’s small-scale farmers, and in turn, improve food security, alleviate rural poverty and promote environmental sustainability. The risk-sharing model of a public-private partnership (PPP) approach has been proven successful in realising these goals

PROJECT DETAILS	
<b>Year</b>	2010 – Present
<b>Major Donors</b>	World Bank; FAO; WFP; IFAD; AGRA; AfDB; European Commission; USAID; DANIDA; UK DFID; Ireland Aid; Norfund; SIDA; JICA; Chinese Govt
<b>Key Business Partners</b>	Unilever; Yara International; Diageo Africa; DuPont; Monsanto; General Mills; SAB Miller; Syngenta; Standard Chartered Bank
<b>Country</b>	Tanzania
<b>Green Growth Sector</b>	Cross-sector
<b>Partnership Approach</b>	Multi-stakeholder initiative
<b>Further info</b>	<a href="http://www.sagcot.com">http://www.sagcot.com</a>

and SAGCOT marks the first large-scale PPP in the agricultural history of Tanzania. (Africa Practice & ESEA, 2010)

### Rationales of major partners

**Tanzanian Government:** Achieving Tanzania's potential is only possible if the challenges of land management, infrastructural planning, long-term financing and smallholders' knowledge gaps are overcome. Recognising these challenges, the government has joined a public-private partnership of local and international players in business, government and the donor community to address the challenge of modern agricultural development through an agricultural growth corridor approach, which "(i) addresses multiple bottlenecks at once; (ii) coordinates and targets a range of investments and interventions; (iii) covers a defined geographic area with high agricultural potential; and (iv) lays the foundations for sustained impact on a much greater scale than would be possible for individual players" to achieve on their own. (World Economic Forum, 2012)

**International development agencies (IDAs):** Other than the typical rationales of pushing forward development projects, IDAs in SAGCOT share a common vision and belief in the long-term goal of advancing agricultural development in Tanzania through partnerships. This provides the basis needed for successful alliance among such a range of diverse institutions. (Africa Practice & ESEA, 2010)

**Corporate partners:** Business investments are more likely to be successful and profitable if they are part of a coordinated strategy to develop a particular area. SAGCOT partners also benefit from full access to information, networking, and professional services by joining a community of some of the most respected national and international players in agriculture and beyond. The biannual Partnership Forum provides all partners with a regular opportunity to network with fellow partners and share information, ideas and best practice. (Africa Practice & ESEA, 2010)

### Description of activities involved

Green growth for the agricultural sector involves increasing food security (i.e. food availability, access, stability and utilisation) and improving nutrition, while conserving natural resources, reducing vulnerability to climate change, and limiting greenhouse gas emissions.

Early examples of green agricultural investments from the SAGCOT region include:

- Training programmes to support smallholders' agro-ecological intensification, including adopting systems of rice intensification, which increases yields while decreasing input costs and water use;
- Conservation agriculture adopted by small- and large-scale farmers to build soil organic matter, sequester carbon, increase water use efficiency and improve drought resistance for maize and other crops;
- "Block farming" schemes that pool land and labour while negotiating favourable input and output prices, which have increased efficiency and yield of smallholder agriculture;
- Warehouse receipt systems and small milling operators that form rural value chains while improving smallholders' income through value addition; and
- Vertically integrated commercial plantations established to benefit nearby communities by purchasing, processing and marketing crops.

The *SAGCOT Green Growth Strategy* will build on current successes by supporting inter-sectoral synergies through initiatives such as:

- Designating natural areas that protect ecosystem services for agriculture and rural communities (e.g. irrigation water supplies);
- Providing funding for new research trials and extension programmes to support climate-smart agriculture to capture carbon in soils and vegetation, improve yields and resilience to droughts and floods, and protect water quality and biodiversity;
- Steering agricultural investments that balance support for local food security and nutrition with opportunities for export earnings, e.g. by scaling up soya bean production that improves soil fertility through nitrogen fixation;
- Putting investments in value chains for agricultural inputs and markets that serve smallholders and other similar agribusinesses (e.g. outgrower schemes, warehousing, processing);



- Leveraging REDD+ into financing transitions to low-emission energy systems such as sustainable bio-energy, distributed solar and micro-hydro for rural communities and agribusinesses;
- Designing wildlife corridors compatible with development planning to maintain biodiversity, support tourism revenues and minimise human-wildlife conflict; and
- Connecting local land-use planning with national and sub-national development planning to ensure coherent allocation of land and water, safeguard against land grabbing and empower communities in the negotiation process. (World Economic Forum, 2012)

### Contributions of each party to the partnership

Greening agriculture and agricultural landscapes can neither be achieved solely within the agricultural sector, nor solely through public sector action. To operationalise sustainable agriculture, rural development, watershed management, biodiversity conservation, and climate change adaptation and mitigation in a given landscape, strategic collaboration amongst stakeholders in assessment, planning, investment and monitoring activities is required.

### Contributions of each party include:

**Tanzanian Government:** The President reached out to a number of bilateral and multilateral donors and took the first step by committing US\$1 million a year to the Catalytic Fund, which is to provide social venture capital (i.e. low-cost debt and equity) to start-up agricultural businesses. To oversee the implementation of the partnership, the government set up a formal SAGCOT executive committee, co-chaired by the Ministry of Agriculture and Unilever, and comprising all partners.

**International development agencies:** All IDA partners have provided grants and/or loans of various amounts to support projects in the sectors of agriculture and agribusiness finance, power generation, road and rail development, port development and trade facilitation. For example, USAID committed to providing US\$2 million to the Corridor's US\$15 million Catalytic Fund.

**Corporate partners:** Businesses are providing finance to various projects, and making investments into building different essential facilities such as fertiliser terminals and electric irrigation systems, as well as providing consultancies or training to smallholder farmers. Prorustica and AgDevCo led the development of the investment blueprint. (World Economic Forum, 2012)

### Evaluation of the success or impact of the partnership

SAGCOT aims to expand investment in agribusinesses that contribute to income growth amongst smallholders and employment creation across agribusiness value chains in the Southern Corridor. With SAGCOT embracing the green growth approach involving coordination with development and land- and resource-related management strategies and investments, the region should expect a wide range of benefits.

**Environmental impacts:** As environmental sustainability is at the heart of the development partnership, low-emission agriculture-led economic growth in the region is expected. The proposed SAGCOT clusters are situated near nature conservation areas, and aligned investment in ecosystem management are already in progress within the corridor to stimulate conservation agriculture, agro-forestry, bio-energy and terrestrial climate action, including payments for ecosystem services and climate change mitigation.

**Development / business impacts:** Over the next two decades, the US\$3.4 billion investment could allow more than 350,000 hectares to become productive lands, increasing field crop commercial production to 680,000 tons, rice to 630,000 tones, sugar cane to 4.4 million tons, red meat to 3,500 tons and high-value fruits and vegetables to 32,000 tons. Exports could reach \$0.8 billion. The partnership is also creating 420,000 jobs, generating annual farming revenues of \$1.2 billion, contributing to food security and will potentially lift more than 2 million people out of poverty by 2030. The large-scale development of the corridor region would multiply Tanzania's economic size and hence gradually incubate significant business opportunities for all corporate partners. (World Economic Forum, 2012)

### References

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World Economic Forum. (2012). *Financing Green Growth in a Resource-constrained World*. Geneva: World Economic Forum.

### 6.3 Ethiopia drought insurance pilot project

As the climate changes, weather plays a very important role and is a risk to agricultural productivity in LDCs that needs to be effectively managed. Owing to the prohibitive cost of assessing crop damage for a large number of small farmers, traditional crop insurance contracts are expensive to administer and not commercially viable in most rural settings. In contrast, 'index-based' insurance contracts that have pay-outs pegged to a particular weather parameter, like rainfall levels, do not require insurance companies to assess crop damages for individual farmers. The World Food Programme (WFP), in partnership with AXA Re, a French reinsurance company, piloted the world's first humanitarian insurance policy. AXA Re would provide contingency funding in the case of an extreme drought during Ethiopia's 2006 agricultural season. (WFP, 2006)

#### Objectives of the partnership

The pilot is to demonstrate the feasibility of establishing contingency funding by transferring LDC weather risks to international risk markets. Such contractually guaranteed contingency funding contributes to a risk-management system that provides prompt assistance in times of drought before people resort to distress sales of assets - thereby protecting livelihoods, preventing more people from falling into destitution and enhancing resilience to future shocks (WFP, 2007)

#### Rationales of major partners

**WFP/USAID/DANIDA:** Donor governments and international development agencies aim at a new approach to LDCs vulnerable to climate change-induced natural disasters, where they look to break the cycle of poverty and mitigate food security emergencies and climate risks. Drought insurance means that future donations for victims will no longer depend on the whims of donors, but on agreements with international financial corporations. Agencies can instead focus on providing fast relief to victims of catastrophic disaster events.

**AXA Re:** The reinsurer could expect to identify extremely large risk pools with weather data and analysis from other technical partners in designing broader natural disaster and catastrophic risk covers and products. It would penetrate into the rural economy and expand its customer base. By offering bundled micro-finance services, AXA Re would be able to maximise staff productivity, improve cost-effectiveness, and have a stronger impact on farmers' livelihoods.

#### Description of activities involved

The risk index, which is an objective indicator of documented major droughts, and weather derivative contracts were designed in 2004-05 with technical partners to enable the quantification of Ethiopia's drought risk in agricultural areas and the establishment of financial protection to cover the extremes of the risk profile. Access to their data and expertise resulted in an index with 80% correlation with the number of food aid beneficiaries from 1994-2004. The index, updated every 10 days by the Ethiopian National Meteorological Agency (NMA), covered an area in which 17 million people live in 278 districts.

WFP developed the world's first insurance contract for humanitarian emergencies. AXA Re's coverage would have provided US\$7.1 million in contingency funding to WFP for the provision of assistance to Ethiopia in the case of extreme drought in 2006. The premium for the contract was paid by donor governments. The

PROJECT DETAILS		
<b>Year</b>	2004-2006	
<b>Donors</b>	World Food Programme (WFP); USAID; DANIDA; World Bank	
<b>Key Partner</b>	<b>Business</b>	AXA Re;
<b>Country</b>	Ethiopia	
<b>Green Sector</b>	<b>Growth</b>	Disaster Reduction
<b>Partnership Approach</b>	Multi-stakeholder initiative	
<b>Further info</b>	<a href="http://www.wfp.org">http://www.wfp.org</a>	

contract was based on rainfall and was transacted with the international reinsurer. It covered 62,000 households or 310,000 beneficiaries during 2006. (AXA Re, 2005)

### Contributions of each party to the partnership

The partnership combined the funding, actuarial expertise and weather risk-related knowledge which cannot be provided by any single player in the development field.

**WFP/USAID/DANIDA:** WFP financed the premium payment with donations from USAID and Denmark, amounting to US\$933,000. WFP built capacity with government, local partners and NMA to ensure that the pilot was feasible and that it met international market standards for quality of weather data.

**AXA Re:** The reinsurer and WB provided research funding, and business expertise in insurance products development which focuses on long-term financial sustainability.

**World Bank:** The WB's Commodity Risk Management Group monitored the index as the agricultural season progressed. (WFP, 2007)

### Evaluation of the success or impact of the partnership

This pilot project has been evaluated as a success by the WFP, Oxfam and Christian Aid.

**Business impacts:** The project enhanced AXA Re's climate knowledge and broadened its client base and hence increased its profitability.

**Development impacts:** Ethiopian weather risk was indexed and transferred to the international risk market at a price acceptable to all stakeholders. It also facilitated price discovery for Ethiopian drought risk in international markets. Such price information can help the government(s) and donors to focus on the most cost-effective means of dealing with weather risk. The developed index complemented the existing early-warning system. By monitoring such an index in real time, as in 2006, the government(s) and its partners can anticipate drought-related losses over an agricultural season and assess their financial and operational preparedness. This pilot also contributed to the ultimate goal of a comprehensive risk-management solution for Ethiopia's food strategy. (WFP, 2007)

### References

AXA Re. (2005). *Corporate Responsibility*. Retrieved July 25, 2012, from AXA Group: <http://www.axa.com/en/responsibility/customers/property-casualty/health-safety-assistance/>

WFP. (2006, June 3). *World Food Programme*. Retrieved July 25, 2012, from World's first humanitarian insurance policy issued: <http://www.wfp.org/node/598>

WFP. (2007). *Final Report on the Ethiopia Drought Insurance Pilot Project*. Rome: World Food Programme.

## 6.4 Micro-Hydro Scheme around Mt Mulanje, Malawi

The national grid in Malawi reaches only a small percentage of the population and does not extend to remote rural areas such as Mulanje. Since the region enjoys very high levels of rainfall, micro-hydro power stations are suitable for up to 15 of Mt Mulanje's rivers based on technical assessments carried out by Practical Action through a European Commission-funded project. The business venture, Mulanje Electricity Generation Authority (MEGA), aims to bring locally-generated electricity to Malawian communities. (Business Innovation Facility, 2012)

### Objectives of the partnership

Constructed with the guidance of Practical Action, an organisation that has developed micro-hydro across the world, the infrastructure is to capture power from Lichenya River which flows down Mount Mulanje through Bondo community, and provide electricity to low-income communities with no prospect of electricity access according to current national infrastructure development plans. (Business Innovation Facility, 2012)

### Rationales of major partners

**European Commission:** This initiative is to provide affordable, sustainable energy for local people. It will deliver wider benefits such as children attending school because they will not have to spend time grinding maize meal. Improved health outcomes are another motive as a result of the supply of electricity to clinics.

**Mulanje Mountain Conservation Trust (MMCT):** The Trust aims to protect biodiversity on Mt Mulanje. Malawi is a very poor country where unsustainable and illegal resource use often happens due to widespread poverty and lack of economic opportunity. The project could illustrate that micro-hydro power generation can be a sustainable motivator of local economic development and improved livelihoods. (Business Innovation Facility, 2012)

### Description of activities involved

The micro-hydro power station is situated within Bondo, a community of seven villages with 23,033 inhabitants that live on the lower slope of Mt Mulanje. The construction of the 88kw power facility is almost complete. The critical next step is to manage generation and distribution of power. These installations are normally managed by local communities, but MMCT and Mulanje Renewable Energy Agency (MREA) aim to establish a corporate body, MEGA, to take on this role. With micro-finance assistance and by becoming shareholders, local residents will be able to purchase batteries for household electricity that can be charged by the micro-hydro plants. MEGA will attract funding and reinvest to replicate hydro stations around the mountain and extend electrification to many more communities. (IOD PARC, 2012)

### Contributions of each party to the partnership

Despite a favourable natural condition for hydro-power generation, the communities lacked seed funding and technical expertise, both of which cannot be provided by a single donor or business player.

**European Commission:** The Commission donated €425,000 (US\$514,400) to fund the project.

**Eastern Produce:** The regional tea company provided MKW500,000 (US\$1,800) for the power house and its tea estate contributed storage space and transportation.

**MMCT:** The Trust is responsible for the construction of the Bondo micro-hydro power station.

**Practical Action (Southern Africa):** The organisation conducted technical assessment and guidance for the plant construction. It also used its community-based planning energy tool to bring together different community segments to begin joint planning and so develop community ownership of the project.

**Business Innovation Facility (BIF – funded by DFID):** The BIF provided support to develop the MEGA business plan, establish MEGA as a legal entity, enable investment shareholding and establish good governance. (IOD PARC, 2012)

### Evaluation of the success or impact of the partnership

Baseline monitoring and evaluation have been conducted by the International Organisation Development Ltd.

**Environmental impacts:** Availability of electricity will contribute towards reducing deforestation and fossil fuel use. (A full EIA has been carried out at Bondo and determined limited negative aspects of this particular construction.)

PROJECT DETAILS		
<b>Year</b>	2008-2012	
<b>Donor</b>	European Commission, Practical Action, BIF	
<b>Key Partner</b>	<b>Business</b>	Mulanje Mountain Conservation Trust, Eastern Produce
<b>Country</b>	Malawi	
<b>Green Sector</b>	<b>Growth</b>	Energy
<b>Partnership Approach</b>	One-to-one approach	
<b>Further info</b>	<a href="http://www.mountmulanje.org.mw">http://www.mountmulanje.org.mw</a>	

**Development / business impacts:** The first phase of the project can supply direct to 427 households, 2 general dealer shops, 1 school, 1 clinic, 3 maize mills and 5 other businesses. All 9,000 villagers will benefit indirectly either through better healthcare, education or access to business opportunities. Electricity will open business opportunities for residents who produce fruits such as pineapples and avocado pears through the potential to invest in a fruit processing factory. It could also encourage many innovative enterprises to be established locally such as barber shops, groceries and other ventures. This would contribute significantly towards poverty reduction. (Business Innovation Facility, 2012)

## References

Business Innovation Facility. (2012, March). *Practitioner Hub on Inclusive Business*. Retrieved July 25, 2012, from Business Innovation Facility: <http://www.businessinnovationfacility.org>

IOD PARC. (2012, April). *Bondo Micro-Hydro Scheme*. Retrieved July 25, 2012, from IOD PARC: <http://www.iodparc.com>

## 6.5 Solar energy in Tunisia (The PROSOL programme)

To reduce the country's dependence on oil and gas, Tunisia's government has undertaken steps to promote the development and use of renewable energy. The Solar Promotion Programme (PROSOL) – a partnership amongst the Tunisian Ministry of Industry, Energy & SMEs, the National Agency for Energy Conservation (ANME), the state utility Société Tunisienne de l'Electricité et de Gaz (STEG), the Mediterranean Renewable Energy Centre (MEDREC), the United Nations Environment Programme (UNEP), and the Italian Ministry for the Environment, Land and Sea, aims at strengthening the solar water-heater (SWH) market in the residential sector, through financial support (MEDREC, 2008).

### Objectives of the partnership

Through this partnership the Tunisian government seeks to achieve a long-standing goal of transitioning households away from water heaters run on fossil fuels to SWHs by promoting a solar thermal market. The PROSOL programme was designed to address three main challenges: (i) Levelling the competitive playing field for renewables; (ii) Building-up both the demand and supply sides of the SWH market; and (iii) Overcoming the absence of consumer credit for renewable energy investments and reliable credit performances.

### Rationales of major partners

**Tunisian Ministry/ANME/STEG:** A key objective is to reduce dependence on fossil fuels.

**Italian Ministry/UNEP:** The objective was to overcome barriers preventing deployment of renewable technologies that can contribute to green growth.

**Commercial banks:** Bankers acknowledge that risk aversion and lack of understanding of green technology financing have contributed to capital shortages in the market (CPI, 2012). A multi-stakeholder partnership to subsidise a loan facility would help to overcome risks for banks and demonstrate the commercial feasibility of such investments.

PROJECT DETAILS	
<b>Year</b>	Since 2005 (Re-launched in 2007)
<b>Donors</b>	United Nations Environment Programme; Italian Ministry for the Environment, Land and Sea
<b>Key Business Partner</b>	Société Tunisienne de l'Electricité et de Gaz; 3 commercial banks
<b>Country</b>	Tunisia
<b>Green Growth Sector</b>	Energy
<b>Partnership Approach</b>	Multi-stakeholder initiative
<b>Further info</b>	<a href="http://www.medrec.org/en/">http://www.medrec.org/en/</a>



### Description of activities involved

Financial and fiscal support combines a capital grant qualifying for a VAT exemption, customs duty reduction and a bank loan with a reduced interest rate. Repayment of the loan is organised through the regular utility bill of the state electric utility STEG, with local banks receiving support that allows them to finance SWH projects with reduced interest rates. A complementary interest rate subsidy was available during the first 2 years (2005-06) of the programme, reducing the interest rate of the loan to 0% to the final end user. This support was removed in 2007 and annual interest rates for loan repayment have been 6.5%. (UNEP, 2005) (MEDREC, 2008) (UNCSD, 2011)

### Contributions of each party to the partnership

**UNEP/ANME:** Both established a \$2 billion facility to provide the end users' interest rate and capital cost subsidies. ANME also provides a project management service. Since 2007, ANME provided a subsidy of 20% of the cost of SWH.

**Italian Ministry /MEDREC:** With the Centre being a project financial partner, the Italian Ministry provides a complementary subsidy.

**STEG:** The state utility acts as a refunding generator of credits promoting the use of SWH, by facilitating loan repayments through STEG customers' utility bills.

**Commercial banks:** They are responsible for financing about 70% of SWH cost through supplier credit (MEDREC, 2008) (UNEP, 2010).

### Evaluation of the success or impact of the partnership

PROSOL is hailed a success by a number of organisations, including UNEP, the San Giorgio Group and Rio+20. This example provides insights into how a developing country can align domestic and international support to level the playing field between low-carbon technologies and heavily subsidised fossil fuel-based alternatives. The outcomes achieved include savings in fossil fuel subsidy expenditures by the Tunisian Government, avoided CO<sub>2</sub> emissions, increased energy independence, and economic development. In particular:

**Business impacts:** Training programmes have built banks' expertise in financing renewable energies. Awareness-building initiatives have communicated the profitability potential of the market to banks. For SWH suppliers, the turnover increased by 28% per year.

**Environmental impacts:** As of 2010, PROSOL helped avoid 705,000 tonnes of CO<sub>2</sub> and 251kto<sub>e</sub> of fossil fuel consumption. It reduced Tunisia's reliance on imported fuel.

**Development impacts:** Over 50,000 Tunisian families now get their hot water from solar energy, based on loans amounting to more than \$5 million in 2005 and \$7.8 million in 2006 – a substantial leverage to PROSOL's initial cost of \$2.5 million. The domestic solar thermal industrial cluster grew significantly and created about 3,000 new jobs (UNEP, 2005) (UNCSD, 2011) (CPI, 2012).

### References

CPI. (2012). *San Giorgio Group Case Study: Prosol Tunisia*. Venice: Climate Policy Initiative.

MEDREC. (2008). *PROSOL Tunisia 2007*. Montplaisir: MEDREC.

UNCSD. (2011). *Rio+20: PROSOL - Solar Programme*. Retrieved July 17, 2012, from United Nations Conference on Sustainable Development 2012: <http://www.uncsd2012.org/index.php?page=view&type=99&nr=39&menu=137>

UNEP. (2005). *Climate Change Finance - Solar Water Heating Loan Facility in Tunisia*. Retrieved July 17, 2012, from United Nations Environment Programme: [unep.org/climatechange/finance/LoanProgrammes/MEDREP/PROSOLinTunisia/tabid/.../Default.aspx](http://unep.org/climatechange/finance/LoanProgrammes/MEDREP/PROSOLinTunisia/tabid/.../Default.aspx)

UNEP. (2010). *Green Economy - Developing Countries Success Stories*. Paris: United Nations Environment Programme.

## 6.6 Planting trees and reducing greenhouse gases in Tanzania

Around 4 million hectares of forest land vanishes on the African continent each year, for reasons ranging from conversion to agricultural use to illegal logging. In Tanzania, Green Resources, a multi-dimensional forest products company based in Norway, is reversing this trend, by turning unused grasslands into forests and building a 15 MW heat-and-power plant fuelled by recycled wood waste from its sawmills, with the support of IFC's investment and advisory solutions (IFC, 2009a).

### Objective of the partnership

Against the threat of global climate change, Green Resources AS, in partnership with IFC, is implementing an investment programme to enable a significant sequestration of carbon, reducing the amount of climate change-causing greenhouse gases in the atmosphere through expanding and modernising its saw mill operations, and establishing additional plantations in Tanzania (IFC, 2009a).

### Rationales of major partners

**IFC:** The IFC believes this project will help sustainably address strong demand for timber and poles, given the growing regional demand for housing and for rural electrification in Africa (IFC, 2009b).

**Green Resources AS (GRAS):** The Company will gain from the financing provided by IFC and access to the carbon market. This will facilitate technological upgrading and economies of scale. It will also gain a new marketing tool from having all its plantations certified by the Forestry Stewardship Council. This project is expected to improve GRAS's profitability and attract more customers through the supply of a wider range of high quality forest products.

### Description of activities involved

Over three years, GRAS is pushing forward an investment programme to expand and modernise its saw mill operations in Sao Hill, Tanzania, and create more plantations in the country. The programme will include:

- Achieving internationally recognised certifications (FSC, CDM and ISO 14001/9001);
- Planting 9,000 ha of land with eucalyptus, pine, teak and indigenous trees;
- Expanding its equipment for harvesting and wood transportation;
- Modernising an existing saw mill to increase efficiencies and capacity; and
- Retrofitting a small wood waste-to-energy plant at the mill, and installing a new wood waste-fired Combined Heating and Power (CHP) facility. (IFC, 2009b)

### Contributions of each party to the partnership

The total project cost is estimated at US\$64.2 million. Longer-term financing from a partner institution is needed as initial cash flow will remain low until improvements have been implemented.

**IFC:** The IFC offers a long maturity loan amounting to US\$16.5 million and a carbon delivery guarantee (CDG) for the sales of carbon credits produced by the CHP plant. Enhancing returns for the CHP project, the CDG will facilitate GRAS's access to the Carbon Emissions Reduction (CER) market and allow it to obtain better prices than otherwise possible. IFC is also supporting the company with a wood feasibility study to determine the amount of waste wood that would be available for the CHP plant.

PROJECT DETAILS		
<b>Year</b>	Since 2010	
<b>Donor</b>	International Corporation (IFC)	Finance
<b>Key Partner</b>	Green Resources AS (GRAS)	
<b>Country</b>	Tanzania	
<b>Green Sector</b>	<b>Growth</b>	Forest/Energy
<b>Partnership Approach</b>	One-to-one approach	
<b>Further info</b>	<a href="http://www.ifc.org">http://www.ifc.org</a>	

**GRAS:** The Company is responsible for the full implementation of the project, including the feasibility study and construction work for the CHP plant, expanding its Sao Hill sawmill, and plantation work on the ground with its own technical expertise. It will also transfer its excess power capacity to Tanzania’s national grid, helping meet growing demand for electricity. (IFC, 2009b)

**Evaluation of the success or impact of the partnership**

**Environmental impacts:** By saving energy, as the new CHP plant is based on recycled and renewable feedstock, the project is sequestering 1.7 million tons of carbon emissions on average each year (10 million tons of CO<sub>2</sub> equivalents over the course of 10 years) from new plantations and new power plant that runs on wood waste. High-value wood products can be manufactured from scrap wood. It will develop a market for carbon credits through sale of excess carbon sequestration to developed countries.

**Business impacts:** The project will help GRAS multiply its capacity and efficiency of its operations as a result of renovation of the existing saw mill with more advanced technology. This in turn will enable the company to better utilise its raw materials and economise on energy use while achieving economies of scale. GRAS’s profitability is expected to improve and consumers will benefit from the wider product range which will include higher quality lumber and value-added products.

**Development impacts:** The project has created significant employment opportunities to the local community (500 full-time jobs, and 2,500 seasonal jobs), which should in turn slow down rural migration. It will also build up Tanzania’s commercial plantation industry, take harvesting pressure off natural forests, and create a strong revenue stream by increasing foreign exchange earnings for the country (IFC, 2009b).

**References**

IFC. (2009a). *Green Resource Plants Trees, Reduces Greenhouse Gases in Tanzania Project*. Retrieved August 19, 2012, from International Finance Corporation: <http://www.ifc.org>

IFC. (2009b). *Green Resources*. Retrieved August 19, 2012, from International Finance Corporation: [http://www.ifc.org/ifcext/spiwebsite1.nsf/ProjectDisplay/SPI\\_DP26506](http://www.ifc.org/ifcext/spiwebsite1.nsf/ProjectDisplay/SPI_DP26506)

**6.7 Affordable Green Housing in Mexico City**

A new global business is emerging – a rapidly growing market for eco-friendly commercial and residential buildings across the developing world. Cooling, lighting and ventilating buildings are responsible for the consumption of almost 40% of all energy generated across the world. Businesses that can transform the building sector will transform the world, by cutting down today’s excessive energy consumption, offsetting emissions, and expanding supply of affordable, climate-friendly living spaces for a growing world population. The IFC has supported Mexico’s VINTE, a company specialising in affordable housing for low- and middle-income families, to build greener housing. (IFC, 2012)

PROJECT DETAILS		
<b>Year</b>	2008-2011	
<b>Donor</b>	International Finance Corporation (IFC)	Finance
<b>Key Business Partner</b>	VINTE (Viviendas Integrales)	
<b>Country</b>	Mexico	
<b>Green Growth</b>	Green building construction /	



### Objective of the partnership

VINTE has been an IFC client since 2008. This project aimed to enable low- and middle-income households to purchase near-zero-emission properties at affordable prices. By optimising design and focusing on energy consumption, it helps home buyers reduce their carbon footprint. (IFC, 2011a)

<b>Sector</b>	Energy efficiency
<b>Partnership Approach</b>	One-to-one approach
<b>Further info</b>	<a href="http://www1.ifc.org">http://www1.ifc.org</a>

### Rationales of major partners

**IFC:** The IFC is working globally to help reposition the building industry with a new focus on sustainability and energy efficiency. Increasing access to affordable housing is seen as a key element of expanding essential infrastructure in emerging markets. Housing creates value, equity, and wealth, and it helps raise living standards. The IFC is scaling up its investments in green building projects by providing long-term financing for clients who understand that sustainable development is more than a fad. (IFC, 2012)

**VINTE:** The Company is a smart developer which realises that a smaller carbon footprint also translates to greater marketability – and profitability. It believes that, just as cars track gasoline usage, homes should be able to monitor energy and water consumption for people at all income levels, letting them save money and protect the environment by cutting back when necessary. (IFC, 2011a)

### Description of activities involved

IFC committed debt and equity investment to VINTE for building its pilot sites in Playa del Carmen, Quintana Roo state. A typical green and eco-friendly home is about 600 sq. ft. and contains a living room, dining room, kitchen, laundry patio, two bedrooms and a bathroom. Buyers are usually young professionals who grew up in Mexico City's informal housing settlements with marginal access to clean water, electricity, sanitation, roads, schools and parks. Coupled with well-planned urban developments, VINTE homes are designed to reduce gas bills and fitted with a special wall meter that allows residents to monitor water, electricity and gas consumption. Monitoring devices are sometimes provided to the wealthy today, but VINTE is one of the first to provide them for middle- and low-income housing. Prices start at US\$22,000 while many of VINTE's customers have annual incomes between US\$9,000 and US\$20,000. (IFC, 2011b)

### Contributions of each party to the partnership

**IFC:** For this project, the IFC provided US\$22.5 million to VINTE, including US\$12.5 million debt and US\$10 million equity in 2008. In July 2010, to help VINTE issue three-year long-term bonds (US\$23.9 million) in the domestic Mexican capital markets, IFC also provided a partial credit guarantee, which would raise the credit rating of the issuance.

**VINTE:** The developer implements the project from site preparation and basic infrastructure to housing construction. (IFC, 2011b)

### Evaluation of the success or impact of the partnership

**Environmental impacts:** Near zero energy homes reduce environmental impacts by producing almost as much renewable energy as they consume in utilities. By adhering to “Our Green Design Guide” developed by Artha Capital, homes being developed are expected to reduce energy consumption by over 30% and greenhouse gas emissions by 10,000 CO<sub>2</sub> tons per year.

**Development impacts:** VINTE homes are contributing to sustainable urban infrastructure and surrounding community development; developments were previously built by local and federal authorities but were neglected due to lack of resources. The architectural design benefits from the Near Zero Energy concept which follows bioclimatic criteria, technical efficiency, and telemetry systems – facilitating savings up to 90% of the total cost of the average consumption of energy in the region.

**Business impacts:** In addition to advantages of marketing and profitability, VINTE's innovative and unique business model is a success because the company targets consumers who are planning to live in the housing development that remains affordable to working families. It has sold more than 8,500 homes in the last six years and become a model in Mexico for strong financial performance and technologically innovative housing products. VINTE's bond programme creates a presence for the company in the capital debt markets while tapping into longer term funding. (IFC, 2011b)

## References

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## 6.8 Investing for an energy-efficient chemicals sector in Russia

The Russian chemicals industry is one of the country's most polluting and inefficient. It is responsible for more than 20 million tons of direct carbon emissions annually and about 1 million of toxic substances released into the environment. Amid the steep economic downturn in Russia during the global financial crisis, Samara region, where KuAz - the leading Russian manufacturer of caprolactam (the raw material for synthetic fibres, engineering plastics, automotive and other downstream products) and one of the top five Russian producers of nitrogenous fertilisers - is located, has suffered a 30% contraction in economic output, far worse than the national average. Nonetheless, KuAz has entered into a partnership with IFC which provided a corporate loan to fund the company's energy efficiency programme. The significant cost reduction as a result has helped KuAz maintain its entire workforce. (IFC, 2005)

PROJECT DETAILS		
<b>Year</b>	2009-2010	
<b>Donor</b>	International Finance Corporation (IFC)	Finance
<b>Key Partner</b>	<b>Business</b>	KuibyshevAzot OJSC (KuAz)
<b>Country</b>	Russia	
<b>Green Sector</b>	<b>Growth</b>	Heavy industry & manufacturing
<b>Partnership Approach</b>	One-to-one approach	
<b>Further info</b>	<a href="http://www.ifc.org">http://www.ifc.org</a>	

### Objectives of the partnership

As part of the IFC's Climate Change Programs in the Russian Federation, this project aimed to use energy efficiency and cleaner production as routes to reduced costs, increased competitiveness, and better environmental performance of KuAz – a flagship company in the Russian chemicals industry. This partnership was to support KuAz in its execution of an investment programme for refurbishing, upgrading and expanding its production facilities (IFC, 2010a).

### Rationales of major partners

**IFC:** For IFC, the main strategic priority in Russia is tackling climate change with an integrated investment and advisory platform. Through this project, IFC, with support from its donor partners, took a holistic approach to stimulating the market for investments in energy efficiency and cleaner production by providing real sector clients with dedicated credit lines and expert advice. (IFC, 2010b)

**KuAz:** Russia's chemical industry leader believes that sustainability and good business results go hand-in-hand. A commitment to energy efficiency and an environmentally friendly heavy industry business model should be a key to its success. By implementing cleaner production technologies and best practice, the Company would reduce costs, prevent pollution and help offset the negative effects of climate change. (IFC, 2010a) (IFC, 2010b)

### Description of activities involved

The IFC investment supported KuibyshevAzot Open Joint Stock Company in implementation of its 2009-10 energy efficiency and clean production programme. An Environmental, Social, Health & Safety (ESHS) audit was completed; based on the audit findings and the resulting Environmental & Social Action Plan (ESAP), KuAz developed and implemented a complete set of environmental, occupational health and safety activities and management tools to meet best practices. As part of its partnership with IFC, KuAz assessed and carried out a number of programmes to improve energy efficiency and minimise discharges to the natural environment. (IFC, 2005)

### Contributions of each party to the partnership

This partnership was crucial to KuAz's energy efficiency and clean production programme because IFC's loan provided the company with long-term financing that was not possible to secure from commercial banks or capital markets.

**IFC:** The IFC used its advisory services and expertise to identify profitable and environmentally beneficial opportunities for investment. It provided a US\$20 million loan to finance KuAz's environmental upgrade programme.

**KuAz:** The total project cost was US\$50 million. KuAz was responsible for the rest of this amount and executing the energy efficiency and clean production programme in the Company's production plants from its genesis to completion. (KuAz, 2009)

### Evaluation of the success or impact of the partnership

**Environmental impacts:** This project has resulted in significant energy savings and a reduction in carbon emissions of 115,000 tons per year (equivalent to taking 23,000 cars off the road). (IFC, 2010b)

**Development impacts:** The significant reduction in energy consumption in the Company's production process has helped it maintain its entire workforce, remaining an anchor of a local community that depends heavily on its 5,500 jobs. (KuAz, 2009)

**Business impacts:** The Company has benefitted from \$9 million in energy cost savings a year. Also, as a result of the IFC's investment, KuAz could gain further access to World Bank Group's experience in the areas of energy efficiency and cleaner production, helping secure a sustainable future. (KuAz, 2009) (IFC, 2010a)

### References

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KuAz. (2009). *Summary of Proposed Investment of Energy Efficiency Project*. Retrieved August 10, 2012, from KuibyshevAzot Joint-Stock Company: [http://www.kuazot.ru/eng/ecology/project\\_en\\_ifc\\_en](http://www.kuazot.ru/eng/ecology/project_en_ifc_en)

## 6.9 Fuel-Cell Bus Commercialisation in China

In most Chinese cities, air pollution is a severe environmental and health problem. Coal combustion and oil consumption – the two primary sources of air pollution – are responsible for 90% of China’s energy use. The transport sector, dependent almost entirely on oil, is projected to account for most of the incremental demand for oil over the next two decades. The significant growth in number of vehicles projected for the coming decades will considerably aggravate the urban air pollution problem while also contributing to global warming. The partnership served as a catalyst for cost reduction of fuel-cell buses (FCB) for public transit in Chinese cities and stimulus for technology transfer activities by supporting significant parallel pilots of FCBs and their fuelling infrastructures in Beijing and Shanghai. (UNDP, 2007)

### Objectives of the partnership

The partnership was to facilitate the commercial introduction of fuel-cell buses in China through: “(i) determining the current technical and operational viability of FCBs and accumulating knowledge regarding their current and future potential cost and performance; (ii) building the technical, operational, managerial and planning capacity for long-term use of FCBs; and (iii) stimulating national-level awareness of FCBs and developing a coordinated strategy for the next phase of FCB commercialisation in China.” (Chinafcb, 2003)

### Rationales of major partners

**UNDP:** The Program’s support to the Chinese Ministry of Science & Technology (MOST) was designed to demonstrate the operational and commercial viability of hydrogen FCBs in China, which could set an example for other countries in pursuit of sustainable transport. (UNDP, 2007)

**MOST:** The project in pilot cities would help with capacity building relating to FCBs, increasing the understanding of FCBs among national and municipal governments, investors, media and other key stakeholders; as well as strengthening policy and planning capabilities for the rest of China, with the objective of achieving greener growth. (Chinafcb, 2003)

**Public Transit Company/Suppliers:** The knowledge and experience gained from this project would enable the technology suppliers to identify cost reduction opportunities (including local manufacturing), and the municipal public transit companies would gain valuable experience needed to adopt larger fleets of FCBs in the future. It would also enhance scientific, technical and industrial capacity for commercialising FCBs. (Chinafcb, 2003)

### Description of activities involved

**Phase I:** 3 Fuel-Cell Buses were provided to Beijing during the Olympic Games 2008 along with a FCB workshop and garage and a hydrogen refuelling station, the first of its kind in China. This was coupled with capacity building and awareness-raising activities towards commercialisation in China.

**Phase II:** Identical activities were completed in Shanghai incorporating the lessons from Phase I. Phase II (i) demonstrated the operational viability of FCBs and their refuelling infrastructure by setting up FCB fleets and supportive facilities in Shanghai; (ii) accumulated technical and policy knowledge for advancing commercialisation of FCB technology and the supply chain nationally; and (iii) promoted an enabling environment for FCB expansion in other cities through the design of a roadmap for commercialisation of fuel cell buses in China. (Chinafcb, 2003) (UNDP, 2007)

PROJECT DETAILS		
<b>Year</b>	2002-2006 (Phase I) 2007-2010 (Phase II)	
<b>Donor</b>	UNDP; Global Environment Facility; Chinese Ministry of Science & Technology	
<b>Key Business Partner</b>	Public Transit Company	
<b>Country</b>	China	
<b>Green Growth Sector</b>	Transport	
<b>Partnership Approach</b>	Multi-stakeholder initiative	
<b>Further info</b>	<a href="http://www.chinafcb.org.cn">http://www.chinafcb.org.cn</a>	

### Contributions of each party to the partnership

**UNDP/GEF:** Both agencies contributed a total of US\$11.7 million to fund this fuel-cell bus project.

**Chinese Government (MOST):** The national government provided US\$16.3 million to finance this project. MOST headed an Advisory Committee providing overall advice and guidance to the project at the national level.

**Private Sector:** It co-financed the project with US\$2.45 million. The Public Transit Companies in Beijing and Shanghai operated six FCBs. Fuel-cell cars were designed by Shanghai Volkswagen's Passat GP and co-manufactured by Shanghai Fuel Cell Vehicle Powertrain Co. Ltd, Tongji University, and Shanghai Automotive Industry Corporation. The buses were developed by Tsinghua University and Beiqi Foton Motor Company. Private sector suppliers also provide advice on the setting up of the trial system and guidance on how to analyse the data collected. (Chinafcb, 2003) (UNDP, 2007) (IPHE, 2009)

### Evaluation of the success or impact of the partnership

**Environmental impacts:** The widespread use of FC vehicles in over 13 Chinese cities can reduce urban air pollution with an average saving of 9.1 million tonnes of greenhouse gas emissions per year. (IPHE, 2009)

**Development impacts:** This co-operation has helped bring down the cost of FCB technology to levels that will enable their widespread cost-competitive introduction in the mega-cities of many developing countries. It makes hybrid, electric cars, buses and taxis accessible for the people. (Chinafcb, 2003)

**Business impacts:** The results of the pilot have been used to promote and replicate FCBs as a commercially viable transportation alternative for cities sharing similar environmental characteristics and conditions and hence brought new business opportunities for the transportation sector in China. (UNDP, 2007)

### References

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## 6.10 Co-Processing of Waste Materials in Cement Production

In many developing and newly industrialised countries, ever increasing quantities of waste are disposed of in an uncontrolled manner, incinerated or dumped in poorly operated landfill sites. Solid waste is generally managed without recourse to the technological infrastructure for safe disposal, appropriate laws and/or enforcement and awareness of the damage caused and the high cost of remediation. As a result, the uncontrolled disposal of waste becomes particularly serious - and contaminates soil, water and air - where hazardous industrial waste is involved. Living conditions also deteriorate and public health is threatened.

With *co-processing* (alternative fuels and raw materials (AFR) are used in cement kilns in place of fossil fuels and primary raw materials), the cement industry offers an economically viable and environmentally friendly solution to a large range of waste problems. AFR generated from waste enter the cement production process which otherwise consumes a significant amount of natural resources and energy. This helps optimise the use of them, cut emissions, and is at the same time a safe method of waste disposal, if managed properly.

Started in 2003, the initial partnership agreement between Holcim Ltd, the world's second-largest producer of cement and GTZ (now called GIZ), funded by the German Federal Ministry for Economic Cooperation & Development, led to the development of guidelines for the utilisation of waste materials in the cement industry. They are particularly designed to improve waste management in developing countries. At the end of 2005 the partners entered into a second three year co-operation arrangement to advance the implementation of the guidelines which was successful in more than 20 countries until now. (Holcim-GTZ, 2009) (Holcim Ltd, 2009)

### Objectives of the partnership

Despite the general acceptance of co-processing as an integrated part of waste management in Europe and the continuous increase in AFR use in cement plants in industrialised countries, the question as to why co-processing has not been better promoted as an ecologically beneficial form of energy and material recovery in developing countries arises. What basic rules and principles need to be observed to achieve environmentally sound use of AFR in less developed countries? In Phase I, the partnership intended to offer answers to these questions through developing and testing internationally acceptable guidelines for the use of waste materials in cement plants in pilot countries where both GTZ and Holcim are active: Chile, Mexico, Morocco and the Philippines. In Phase II, the goal of the extended partnership was to improve waste management in selected developing countries and to increase resource efficiency through responsible use of waste as fuel and raw materials in the cement industry. (Holcim-GTZ, 2009)

### Rationales of major partners

Improving waste management and environmentally sound cement production is of interest to both companies and is fully in line with their individual visions.

**GTZ:** As the German Government's international development arm, it is the vision of GTZ to successfully promote international cooperation which contributes to sustainable development throughout the world and hence improve people's living conditions. It supports companies and service providers in developing practical consulting services on quality, environment and occupational safety to produce more efficiently while reducing negative environmental impacts of their operations. Private sector involvement helps achieve

PROJECT DETAILS	
<b>Year</b>	2003 – 2006 (Phase I) 2005 – 2009 (Phase II)
<b>Donor</b>	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
<b>Key Business Partners</b>	Holcim Ltd; The Institute of Ecopreneurship, The University of Applied Sciences Northwestern Switzerland (FHNW)
<b>Countries</b>	Worldwide
<b>Green Sector</b>	Waste / Green building construction
<b>Partnership Approach</b>	One-to-one approach
<b>Further info</b>	<a href="http://www.holcim.com">http://www.holcim.com</a>



development policy goals by creating jobs, introducing technological innovations in developing and transition countries, and improving production processes.

**Holcim:** The Company desires to be the world's most respected player in the cement industry, creating value for all stakeholders by placing sustainability at the core of its business strategy, including production processes, product portfolio and access to new markets. To raise resource efficiency and reduce ecological footprint, Holcim's ultimate global objective was to increase the overall share of AFR to 75% worldwide and – as far as technically achievable – up to 100%. By the end of this strategic alliance, Holcim believed it would gain reputational advantage as a competent and trustworthy business partner by the public sector and relevant stakeholders in the pilot countries. (Holcim-GTZ Alliance, 2003) (Holcim-GTZ, 2009)

### Description of activities involved

Phase I – Drafting and model application in selected countries of internationally recognised guidelines governing the co-processing of waste materials in cement production

Pilot projects in four countries enabled testing of the guidelines and compiled experience with co-processing at the local level. The nature of the tasks undertaken was determined by local conditions, with the focus on legislation, awareness raising and networking. The activities involved:

- Synthesis of experience gathered and making it available to groups involved in the co-processing of waste materials at cement factories to help encourage people to discuss the subject on the basis of acquired insight and to speak frankly about the chances it offers, the risks it poses, and the misgivings it generates;
- Drafting of guidelines that has gained global validity and acceptance by an international working group made up of global players such as the United Nations Environment Programme (UNEP) and the Secretariat of the Basel Convention (SBC), public institutions such as the Federal German Environmental Agency, and NGOs (Greenpeace, WWF etc); and
- Amendment/updating of the guidelines for selected countries (Chile, Mexico, Morocco and a South-East Asian country). Holcim operates cement factories and promotes the use of alternative fuels in these countries, while GTZ advises the respective environment ministries on waste management issues (special waste, municipal waste disposal, management of contaminated material etc.).

Phase II – Improvement of waste management in selected developing countries and increase of resource efficiency in the cement and construction industry

The extended GTZ-Holcim partnership continued to promote and anchor co-processing of waste in cement kilns as an integrated part of solid waste management in developing countries in a participatory way. However, the new phase was larger than the first one as five more countries were included and new topics were addressed, including co-processing of household and hospital waste plus associated economic issues, the use of sustainable construction materials and the reuse of construction waste, also within low-cost housing schemes. Results included:

- The waste management improved in selected developing countries through increased and regulated application of co-processing; and
- Concepts have been developed showing the potential and significance of (a) re-use of construction and demolition waste, (b) alternative binders and (c) use of cement/concrete in low-cost housing for its contribution to sustainable development in developing countries.

### Contributions of each party to the partnership

Despite all the technical know-how which Holcim has collected, despite the declared intent of Holcim's corporate management to engage in responsible, sustainable waste management, and despite the group's initial technical groundwork, the company's attempts to substitute alternative fuels for energy resources at their cement factories in developing countries has only met with limited success. The main reasons for this are political reservations, legal uncertainties and a lack of waste-management schemes. Viewed against that backdrop, GTZ makes an ideal partner for Holcim, because GTZ provides its partners with advice and guidance in many projects in the aforementioned areas. GTZ's development- and environmental-policy insight and the proximity of technical cooperation projects to political decision makers are comparative advantages which GTZ can contribute into its cooperation with partners. (Holcim Ltd, 2009)

**GTZ:** The Agency donated €960,000 to mainly finance the salaries of the workers during the test run in Phase I. It provided support in the form of advisory services, training and capacity-building to facilitate implementation of the guidelines and ensure their orderly application.

**Holcim:** The Company operated the cement plants and assured the sorting training, the packing material for the resources and the transport costs from their installation facility to the cement production plants.

**FHNW:** The Institute coordinated this cooperation alliance.

A Steering Committee made up of two representatives each from Holcim and GTZ and additional high-level actors and selected stakeholders were responsible for implementing the project. A neutral coordinating body (FH Basel) documented the project's progress. (Holcim-GTZ Alliance, 2003) (Holcim-GTZ, 2009)

### Evaluation of the success or impact of the partnership

**Environmental impacts:** Implementation of the co-processing guidelines in all Holcim's cement plants has improved waste management in Chile, El Salvador, Indonesia, the Philippines and Morocco. There is a significant reduction in the existing waste-disposal deficits of developing countries, leading to an improved management of natural resources, reduced exploitation of natural resources, reduced degradation of intact habitats and reduced emission of greenhouse gases. The co-processing of waste materials in cement kilns is an alternative form of disposal that sensibly supplements – instead of competing with – the principle of “prevention – recycling – disposal”. (Holcim-GTZ, 2009) (Holcim Ltd, 2009)

**Development impacts:** The guidelines on co-processing of waste material in cement production are now used in 12-15 developing countries. Drawing on these guidelines, the Secretariat of the Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal has drafted globally binding technical guidelines in 2011. It has improved the image of “waste” by introducing a transparent, beneficial form of utilisation. Raising awareness and building up technical know-how among public and private sectors, this partnership contributes to sustainable communities – both regarding waste issues, but also construction and living conditions – with a focus on low-cost housing initiatives. It is also conducive to a more sustainable cement and construction industry by closing the material loop and promoting innovative technologies. Developing countries will be able to save foreign currency otherwise needed to procure costly raw materials. (Holcim-GTZ Alliance, 2003)

**Business impacts:** In more developing countries, Holcim is becoming a trusted partner offering services for national and local authorities in the field of waste management as future framework conditions will favour the recycling and reuse of construction material. The partnership with GTZ is speeding up the opening of new business opportunities regarding sustainable solutions for construction. (Holcim Ltd, 2009)

### References

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## 6.11 Post-consumer Plastics Recycling System for Tanzania

With donations from the Swedish Government, Zanrec Plastics, a small Swedish company, aims to develop local infrastructure for collecting plastics, and implementing regional recycling and waste management systems on the Island of Zanzibar, Tanzania. The system was established where people can earn money from collecting and selling the waste into collection units. The plastic would then be refined and ground into recycled plastic raw material. The project employed local populations, raised awareness on solid waste management and converted used plastics into value-added products. (SIDA, 2011) (IAP, 2012)

### Objectives of the partnership

The partnership was to utilise recycled plastic material as a basis for development of a new product, made partially or fully from recycled plastics. This inclusive business project concerns the implementation of a locally adapted, commercially driven recycling and plastic waste management system which generates maximum social and environmental impacts. (IAP, 2012)

PROJECT DETAILS		
<b>Year</b>	2011-2012	
<b>Donor</b>	SIDA (through IAP)	
<b>Key Business Partner</b>	Zanrec Plastics Limited	
<b>Country</b>	Tanzania	
<b>Green Sector</b>	<b>Growth</b>	Waste
<b>Partnership Approach</b>	One-to-one approach	
<b>Further info</b>	<a href="http://businessinnovationfacility.org">http://businessinnovationfacility.org</a>	

### Rationales of major partners

**SIDA/IAP:** The Swedish International Development Co-operation Agency is to mobilise resources and encourage companies like Zanrec to develop their core businesses in order to contribute to better conditions for poor people. The Innovations Against Poverty (IAP) programme provides funding and assistance to allow people in developing countries to grow out of poverty through enterprises which take advantage of fresh ideas and include local people. (SIDA, 2011)

**Zanrec Plastics Ltd:** The Company aims to identify needs on the local market that could be fulfilled by plastic product such as functional school furniture. The developed product would be a part of the Company's business concept, meaning that it should be a sustainable product, well adapted to the local society and produced locally. It is to become a catalyst for long-term change towards a cleaner and richer Zanzibar.

### Description of activities involved

This business model involved purchasing used plastic from waste pickers via a plastic refund system, then recycling and processing the plastics into value-added products. Along with the main activities, the project also included campaigns which increased local awareness about recycling and waste management, collection of waste-streams by engagement at all levels of society through an engagement strategy; as well as production and sales of eco-social raw material and products with functional logistical solutions and a green production centre for local and global products. (IAP, 2012)

### Contributions of each party to the partnership

The system was designed as a public-private partnership to gather the financial resources from international development assistance, business expertise from a private company and the community networks from local stakeholders in Zanzibar.

**SIDA/IAP:** The Agency subsidised the project with a financial grant of €127,345 for developing the infrastructure for collecting plastics and implementing the recycling system, as well as developing an operational strategy and commercial plan for implementation, expansion and internationalisation.

**Zanrec Plastics Ltd:** The Company was responsible for developing, implementing, and operating the system, as well as designing, building and managing a plastic processing plant. (Zanrec Plastics, 2012)

**Other stakeholders:** Zanzibar Government, Switch Responsible Ventures AB, Rylanders Foundation and FTIAB, Renova AB were brought together through a steering committee to develop appropriate policies,

legislation and strategies for creating a favourable business environment for effective solid waste management.

### Evaluation of the success or impact of the partnership

A project group at Chalmers Teknisk Design has examined the processes and impacts of this partnership.

**Environmental impacts:** The end-to-end collection system has handled and recycled around 500 tons of plastic locally as it introduces a life-cycle opportunity for plastic materials. Approximately 500,000 individuals have been informed about recycling. Around 50,000 primary school students were trained on recycling and environmental awareness.

**Business impacts:** These included public relations benefits, knowledge gained about the local market and environment, and assistance in product development through the identification of requirements for the school furniture. A number of design concepts were developed / evaluated against these demands from users and potential investors in an iterative process.

**Development impacts:** This partnership provided work opportunities in the local community. The collection system has generated 2,000 full-time employment opportunities. Up to 100 people are employed at the processing plant. The local community is educated on sustainability and recycling. (IAP, 2012)

### References

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## 6.12 Incubating solid waste management co-operatives in India

Urban India generates 40 million tons of rubbish each year, a figure that is increasing by over two million tons every year. Yet, only a quarter of that rubbish is collected by government contractors with limited recycling facilities available. The rest is often neglected and left to decay, producing methane, which is estimated to be 23 times more harmful to residents than carbon dioxide. Through a partnership with Innovation Against Poverty (IAP), funded by SIDA, Waste Ventures aims to build an inclusive business model in waste management which empowers the waste collectors, gives them financial benefit and yields a positive impact on the environment. (Solon, 2012)

PROJECT DETAILS		
<b>Year</b>	2011 – Present (Ongoing)	
<b>Donor</b>	Innovation Against Poverty (funded by SIDA)	
<b>Key Business Partner</b>	Waste Capital Partners LLC; Waste Ventures India Pvt Ltd; Basix	
<b>Country</b>	India	
<b>Green Growth Sector</b>	Recycling/Waste management	
<b>Partnership Approach</b>	Multi-stakeholder initiative	
<b>Further info</b>	<a href="http://www.businessinnovationfacility.org">http://www.businessinnovationfacility.org</a>	

### Objectives of the partnership

Working with local NGOs, the partnership intends to incubate some waste pickers' co-operatives which replace the current collect-and-dump solid waste management model. It addresses two of the most pressing problems in developing cities: environmental degradation and social exclusion. Waste is growing rapidly as a

potent contributor to greenhouse gases while waste pickers process recyclables at the expense of their health and dignity. (Waste Ventures, 2011)

### Rationales of major partners

**SIDA/IAP:** The Swedish International Development Co-operation Agency is to mobilise resources and encourage companies like Waste Capital Partners LLC to develop their core businesses in order to contribute to better conditions for poor people. The IAP programme provides funding and assistance to allow people in developing countries to escape poverty through enterprises which take advantage of fresh ideas and include local people. (SIDA, 2011)

**Waste Capital Partners LLC/Waste Ventures:** Working in partnership, the Company and its charity arm searches for and incubates waste picker co-operatives. The Company sources potential candidates for commercial investment and carbon credit development. The situation in India presents a major market opportunity as contractors' kickbacks sustain inefficiencies, valuable waste has been simply dumped and existing waste management expertise is insufficiently leveraged. (Waste Capital Partners, 2012)

### Description of activities involved

In this project, Waste Capital Partners are incubating four small-scale waste management companies through their Indian affiliate, Waste Ventures India. These companies are being owned and operated by waste pickers as co-operatives, who are provided with an operational blueprint, enabling them to multiply their profit margins by five. They are doing this by charging a fee for door-to-door waste collection, chipping and selling recyclables, producing compost to upgrade poor soil, and eventually creating biomass briquettes from garden waste, all while earning carbon credits. The co-operatives are going to provide services to four progressive municipal governments interested in integrated solid waste management conducted by waste pickers. One of these four cities is the municipality of Mhow in the Indore District of Madhya Pradesh. (IAP, 2012)

### Contributions of each party to the partnership

**SIDA/IAP:** The Agency provided a grant of up to €200,000 for incubating four waste management co-operatives. (SIDA, 2011)

**Waste Capital Partners:** The Company finds investment to feed into Waste Ventures and incubates four small-scale waste management companies. It also gives these communities access to global carbon markets with its solid waste management expertise and business experience in India.

**Waste Ventures:** Taking a minority stake, the charity/social enterprise offers these co-operatives start-up support, including training in processing waste, learning to compost the organic material and technical / management advice. (Waste Capital Partners, 2012)

### Evaluation of the success or impact of the partnership

**Environmental impacts:** Composting 50% of waste collected helps to save 60 kg of CO<sub>2</sub> per ton of organic waste (or reducing greenhouse gases by 1.5%). Around 30% of waste is recyclable. This leads to an 80% reduction in landfill, and a saving of 20 tons of CO<sub>2</sub> released into the atmosphere every year.

**Development impacts:** For every city, about 100 waste pickers will be employed, trained and provided with protective gear to prevent respiratory inflammation and injury due to the conditions of working with waste in developing cities. Their life expectancy would therefore increase by 25%. The income of these waste pickers will triple (their earnings are rising from an average of \$1.50 (97p) per day by recycling scraps of garbage found in landfill sites to around \$7 (£4.55) per day), enabling them to send their children to school instead of helping their parents collect waste to supplement the family income.

**Business impacts:** The Company will receive a 4-6% revenue share after the co-operatives' first year of operation and reach profitability in Year 4 (enjoying a 40% profit margin). Allowed to register, validate and sell CERs with CDM registration for a percentage share of revenue, this business will break even in Year 5. Also, Waste Ventures has already been recognised by the WWF as one of the 50 green game-changers. It is currently growing to more cities in India. (Waste Ventures, 2011) (IAP, 2012)

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## 6.13 Community-led Water Quality Management in Egypt

Contamination of scarce water resources from improper disposal of liquid and solid wastes to canals and drains is a growing problem throughout rural areas of Egypt. In the past, a small fraction of Egypt's 4,500 rural villages had proper wastewater disposal facilities or solid waste management and approximately 12 billion cubic meters of wastewater were returned to watercourses each year, seriously degrading water quality in many areas, and negatively impacting human health and the country's economy. The USAID, the Coca-Cola Africa Foundation (TCCF), the International Resources Group (IRG), and UNICEF in collaboration with the Egyptian Ministry of Water Resources & Irrigation have worked through the Water & Development Alliance (WADA) to improve water quality management and environmental services in Gharbiya and Qena Governorates, Egypt. (UNICEF, 2007)

PROJECT DETAILS	
<b>Year</b>	2007-2009
<b>Donors</b>	USAID/Egypt, TCCF
<b>Key Business Partners</b>	Coca-Cola NW Africa, IRG, UNICEF
<b>Country</b>	Egypt
<b>Green Sector</b>	<b>Growth</b> Water
<b>Partnership Approach</b>	Multi-stakeholder initiative
<b>Further info</b>	<a href="http://www.thecoca-colacompany.com">http://www.thecoca-colacompany.com</a>

### Objectives of the partnership

The partnership aimed to improve watershed management through carrying out public awareness and outreach activities on water resources management; providing target communities with low-cost appropriate technologies for wastewater treatment; promoting waste recycling schemes in agricultural areas as an alternative to dumping waste into canals or drains; introducing practical methods for domestic solid waste disposal and management; and providing technical assistance and training to local organisation. (Water & Development Alliance, 2008)

### Rationales of major partners

**The Water & Development Alliance (WADA):** A partnership between Coca-Cola Company and USAID, it supported improved management of limited water supplies, a key priority of the Government of Egypt.

**USAID:** The Agency works with Egyptian counterparts to construct and upgrade water and wastewater facilities in underserved rural areas for the purpose of improving the health and living conditions of Egyptians.

**Coca-Cola Company:** Also as part of its CSR projects for reputational benefits, the Company commits itself to contributing to social and environmental development causes worldwide. It can potentially play an important role towards achieving the goal of water safety and sustainability. (Water & Development Alliance, 2008)

### Description of activities involved

Approaches for household and agricultural waste management are locally appropriate and able to be managed at the rural village level. This includes community-led solid waste collection, disposal, and recycling that create jobs and prevent pollution of shared water courses.

Wastewater treatment technologies were promoted and locally constructed. Community Development Associations, local government authorities, Branch Canal Water Users Associations, and stakeholders in selected pilot areas were involved in all stages of the project to ensure sustainability. A series of training workshops and public awareness initiatives address specific institutional and technical needs of the local participating organisations, and raise awareness of targeted water users and the public at large. (Water & Development Alliance, 2008) (The Coca-Cola Company, 2008)

### Contributions of each party to the partnership

Both the high cost (estimated at over \$10 billion) and scarcity of available land are challenges to constructing wastewater treatment plants which cannot be met by any single player.

**USAID/TCCF/Government of Egypt:** Each of these donors provided funding of \$250,000 to support the project.

**IRG:** The Group assessed alternative methods for treatment and disposal as well as re-use of solid waste and wastewater. It was also responsible for the design, implementation and monitoring of a wastewater treatment facility and agricultural waste recycling scheme.

**UNICEF:** It focused on community awareness campaigns and training that will both provide information to the public about healthy water resource management and mobilise community members in the preservation and improvement of their water facilities.

### Evaluation of the success or impact of the partnership

IRG and TCCF were responsible for project evaluation.

**Development impacts:** A total of 20 local labourers were trained in the care and maintenance of the treatment facilities. There were 80,000 rural residents benefiting from improved liquid and solid waste disposal practices and management plus reduced health hazards through decentralisation of management to rural communities, and greater local responsibility for maintaining irrigation drainage infrastructure. (Water & Development Alliance, 2008)

**Environmental impacts:** Two wastewater treatment facilities were constructed and recycling equipment for agricultural waste provided to project areas. Between 2007 and 2010, wastewater treatment facilities constructed in these two governorates collectively served 54,000 people. An estimated 493 million litres of wastewater annually now receive secondary treatment prior to discharge, improving water quality in the drains and for use in irrigation. (Coca-Cola, 2012)

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# 7 Lessons from selected literature on opportunities for donor-business partnerships and green growth

## 7.1 Recommendations from the 4<sup>th</sup> High Level Forum on Aid Effectiveness

The 4<sup>th</sup> High Level Forum on Aid Effectiveness made the following recommendations with regard to the development of donor-business partnerships:

### *Integrating the private sector in the local development context*

Representatives of donor agencies could take steps to:

- Systematically seek the participation of representatives of the business sector in the global, national and local dialogue in order to expand and enhance donor-business collaboration for development. Capacities of all sides, including business associations and cooperatives, should be strengthened to engage the business sector.
- Promote broader market and value chain development approaches that bring together large and small companies, government authorities, donors and other stakeholders in coordinated and integrated efforts to support income generation, sustainable production and capacity development. (HLF4, 2011)

### *Broaden partnerships between donors and the business sector*

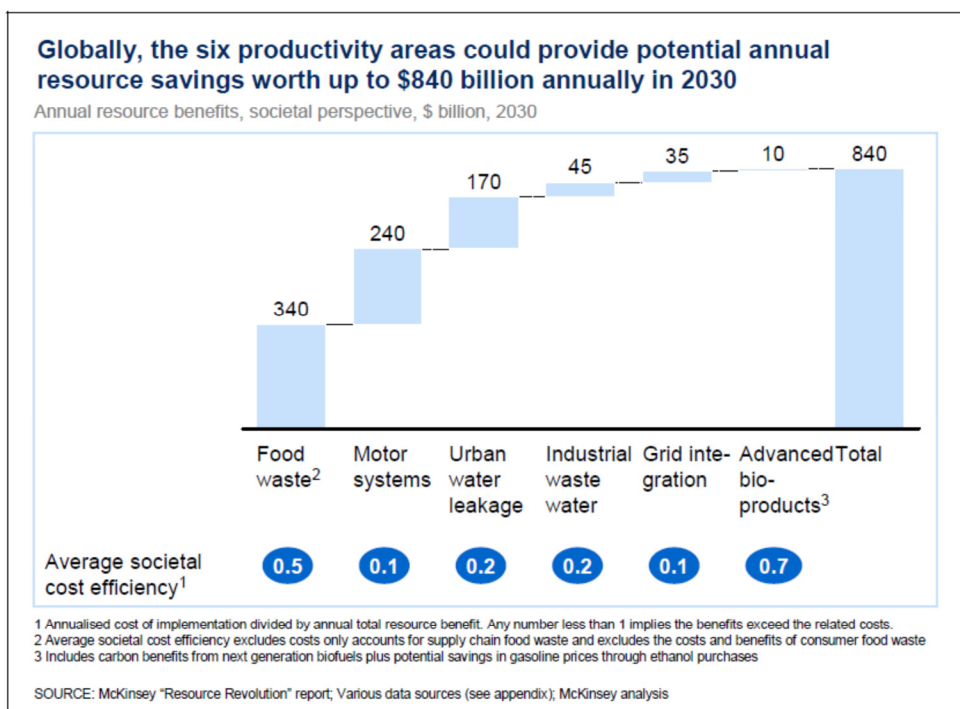
Representatives of the donor agencies could take steps to:

- Share and apply lessons learnt on what makes cooperation between donors and the business sector work.
- Promote leadership and political commitment by governments to prepare the groundwork to ensure donor-business partnerships are demand-driven, balanced and sustainable. This includes effective policy, legal and regulatory frameworks, anchoring such cooperation into national and sector plans and engaging local stakeholders and local communities. This also requires capacities in donor agencies to identify and transparently select the best partners for donor-business partnerships and effectively manage the contractual and regulatory processes.
- Work towards shared objectives by building trust as well as sharing the risks. Shared decisions should factor in risks and include the donor agencies, making available, as fitting, a broad range of instruments, including financial and contractual instruments, with appropriate terms, conditions and risk management which can mitigate the political, economic and financial risks to encourage private investment in developing countries.
- Encourage transparency and competition as a means to assure good governance of such processes. Governments should ensure that public and private cooperation including public-private partnerships are demand-driven and competitive in order to increase the chances of innovation and bring benefits to the local business sector. (HLF4, 2011)

## 7.2 Areas of opportunity relating to green growth specifically

Commissioned by 3GF (2012), a recent report by McKinsey & Co. provides an overview of the opportunity to accelerate the transition to a green economy through public-private partnerships in six high-impact resource productivity areas: food waste, motor system efficiency, urban water leakage, industrial waste water, grid integration and advanced bio-based fuels and chemicals. Although the analysis in the report may be tailored for domestic public-private partnerships, the opportunities presented in these six sectors carry high reference value for international donor-business partnerships.

The six resource productivity opportunities below, according to this report, have the potential to generate resource savings worth up to US\$ 840 billion per year in 2030 or over 22% of the total potential global resource productivity benefits identified in the report 'Resource Revolution: meeting the world's energy, materials, food, and water needs' by Dobbs et al (2011) published by McKinsey Global Institute. (See the graph below.) These areas of opportunities include some of the green growth sectors we studied for this scoping paper, including agriculture, manufacturing, water and energy.



- 1 Food waste:** Food waste represents the biggest opportunity for resource productivity of the six opportunities analyzed here with savings worth up to US\$340 billion globally, per year, by 2030. This opportunity exists in middle- and low-income economies with less advanced supply chains. In fruits and vegetables, for example, roughly 50% of all produce grown is wasted in the EU, the US, and in Sub-Saharan Africa, according to the data from FAO in 2011. However, in middle- and low-income economies, inadequate supply chain infrastructure means that waste is concentrated from post-harvest to distribution. Reducing food waste would be very capital-intensive in developing countries where the supply chain infrastructure is not in place.
- 2 Motor system efficiency:** Improving motor system efficiency could yield up to US\$240 billion in annual resource savings by 2030 globally. Industrial motor systems represent roughly 45% of global electricity consumption, and 70% of manufacturing sector consumption. Motor system efficiency represents one of the largest opportunities in energy efficiency within the industrial sector. At the same time, motor systems seem to be an under-explored opportunity in terms of optimising efficiency. While improving the efficiency of motors themselves can reduce the electricity consumption of a given plant by 2-5%, improving the efficiency of the systems in which motors are embedded can yield reductions of up to 20-30%, according to UNIDO's data in 2010.
- 3 Urban water leakage:** Globally, reducing urban water leakage could provide up to US\$170 billion in resource benefits by 2030. In many countries, more than a third of urban water is wasted — and in some countries that figure is higher. In Turkey, for instance, 59% of the water supply is wasted. In terms of volume savings, improved irrigation practices have the highest benefit. However, as municipal water is valued at about 15 times as much as bulk water used in agriculture — due to requirements in treating water to ensure safer consumption — the value saved by reducing urban leakage is significantly higher.
- 4 Waste water reuse:** Global Water Intelligence suggests that the world needs to reuse half its water supply if it is to meet its water challenges over the next two decades. Current reuse rates in most countries fall well below this target — 14% of water is re-used in the United States and China, 11% in

Spain, but only around 4% in developing countries like Mexico. Past McKinsey analysis of the issue shows that increasing the reuse of wastewater could lead to up to US\$45 billion in annual resource savings by 2030.

- 5 **Grid integration:** Optimising transmission infrastructure to support the integration of renewable energy sources presents a significant economic opportunity. In Europe, a roughly US\$1.5 billion annualised investment in transmission expansion could lead to electricity savings of roughly \$11 billion annually by 2030 and carbon savings of US\$1 billion, for net savings of over US\$10 billion per year. These savings come primarily from electricity production costs due to lower requirements for relatively carbon-intensive back-up capacity throughout the system. Assuming the European opportunity can be extrapolated worldwide, it translates into a roughly US\$35 billion global annual opportunity in 2030. The savings estimates for grid integration are based on estimates for Europe in 2030 (from the “Power Perspectives 2030,” European Climate Foundation, 2011), adjusted for Europe’s estimated share of the world’s energy production in 2030 (12%), as well as the proportion of the world’s production occurring in countries with greater than 25% renewable penetration in capacity terms (36%), as this is where the grid integration opportunity is likely to be greatest.
- 6 **Advanced bio-based fuels and chemicals:** The savings opportunity from a substantial shift away from fossil-based fuels and chemicals towards bio-based products is hard to quantify because key technologies are still at an early stage of moving into industrial scale application with falling costs. The estimate shown here is conservatively based on 60 billion gallons of biofuels supply with direct carbon benefits of US\$ 30 per tonne. The development of a cost-effective advanced bio-products market would also lay the foundations for advanced bio-based fuels and chemicals, providing further benefits.

The cost-benefit ratio of each of these opportunities is less than one, implying that from a societal perspective these investments have a positive return.<sup>2</sup> Of the opportunities, motor systems, grid integration, urban water leakage and waste water reuse have the best societal returns. Advanced bio-based fuels and chemicals and food waste have lower societal returns, but it should be noted that food waste in nominal value has a relatively high potential with 40% share of the total global resource opportunities described here. (3GF, 2012)

## 7.3 Requirements for skills development and entrepreneurship support in relation to green growth

A recent paper by OECD (2012) features low-carbon green growth opportunities for SMEs. It discusses the role of international donors in supporting SMEs in developing countries in their transition to green growth. The authors suggest that skills and awareness are the key missing links for SMEs to harness the opportunities of green growth. Having analysed the aid statistics to see if donors are supporting skills development and awareness raising, the paper argues that the support of donors to address climate change is primarily focused on providing large scale finance, especially to infrastructure projects (e.g. railway transport). The finance to support SMEs was far smaller. Some of the donor-supported programmes, including those of Japan, European Union, and Finland, do enable SMEs to pursue green growth. However, their means of support focus on providing grants and concessional loans to locally proposed projects but do not address the aspects of skills development or awareness-raising in general.

Climate change is a recent phenomenon that is creating waves within the SME sector. Although currently these effects are only minor, the potential for future impacts, both positive and negative, is a real possibility. Currently, some firms are using climate change as a marketing opportunity to gain clientele and create new markets. Achieving environmental accreditation and complying with environmental regulations are often a burden for SMEs, but is increasingly a requirement. Yet, although climate change will have major costs, it will also create opportunities for SMEs to innovate and create new market niches. Government support can assist SMEs to work through these changes, regulatory requirements, and accreditations.

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<sup>2</sup> A societal discount rate of 4% is assumed.



In relation to SMEs, this has implications for skills development and upgrading; there is great variation in the awareness of skills needs in these areas across OECD countries, and where training in these areas is taking place, it is higher-skilled workers who are participating. Both these results point to the need for systematic ways of skills assessment for firms in emerging areas and an overall focus on increasing participation levels of lower-skilled employees in these key 'future fundamental' skill sets.

The issues affecting SMEs in developed countries show that the needs of the firm remain really at the 'software', more invisible level of strengthening the firm's capacities to address the challenges imposed by the transition to a greener production system. A lesson to learn is that infrastructure-oriented donor funding needs to have embodied measures for skills development if it is to be effective; aid orientation today still relies too much on the 'hardware' (e.g. infrastructure and urban planning), in a world where the knowledge economy needs to be supported by skills for entrepreneurship and skills to take on-board the requirements and advantages of low-carbon production.

Therefore, support for the transition of SMEs to a green economy in developing countries cannot rely exclusively on infrastructure, because the management and skills development aspects are as important for firm development as the 'hardware' support. The recommendation given is that international donors should strengthen their support to develop skills and raise awareness among SMEs to harness economic opportunities. Engaging the private sector in both developed and developing countries are likely to be the key to successful green development and de-carbonisation of economies. (Usui & Martinez-Fernandez, 2011)

# 8 Conclusion

Donor-business partnerships provide significant opportunities to tackle problems that individual players by themselves cannot address. Therefore it is now widely recognised that the donor community should collaborate more actively and closely with businesses at the operational and policy levels, both domestically and globally. The achievement of more environmentally sustainable and socially inclusive forms of growth is the new imperative, and there is great potential to jointly develop innovative new financing mechanisms, technologies and business models that will begin to deliver green growth in developing countries, as the case studies have shown.

The case studies have been categorised into three common partnership approaches: the one-to-one approach, multi-stakeholder initiatives, and the platform approach. The table below summarises the pros and cons as well as the suitability for different development purposes of the three main partnership approaches.

Partnership approach		One-to-one approach	Multi-stakeholder initiative	Platform for achieving global development goals
Project operations	Pros	<ul style="list-style-type: none"> <li>Simple and straightforward</li> <li>Quick to set up</li> <li>Results can be achieved relatively quickly.</li> </ul>	<ul style="list-style-type: none"> <li>Ability to address complex challenges in the market</li> <li>Diversified inputs</li> <li>More inclusive</li> </ul>	<ul style="list-style-type: none"> <li>Ability to mobilise joint efforts at a larger scale</li> <li>Longer time spans with more stable funding</li> <li>More diversified inputs</li> <li>Does not rely on any one player</li> <li>Wider process means not vulnerable to failure of individual project or relationship</li> </ul>
	Cons	<ul style="list-style-type: none"> <li>Limited scope of impact</li> <li>Can distort competition</li> <li>Limited diversity of inputs</li> <li>Risk of failure of individual</li> </ul>	<ul style="list-style-type: none"> <li>Higher transactions costs and complexity</li> <li>Takes longer to achieve impact</li> </ul>	<ul style="list-style-type: none"> <li>High degree of complexity in projects and governance</li> <li>Takes longer to achieve impact</li> </ul>

Partnership approach		One-to-one approach	Multi-stakeholder initiative	Platform for achieving global development goals
Achievability of benefit maximisation		project		
	Inclusiveness	Low	High	High
	Collectiveness	Low	Medium	High
	Sustainability	Low	Medium	Medium
	Transparency	Low	Low	Low
Accountability	Medium	Medium	Low	
Development purposes for which the approach is suitable		Small-scale financing Public-private partnerships Experimenting with technological innovation Technology transfer Early stage of product development Promotion of an inclusive business model	Demonstration of market feasibility of a new product or service Creation of local market for a green product Installing higher-cost infrastructure Raising awareness on sustainability issues	Solutions which require sector-wide change Multi-dimensional problems that need many different players to collaborate in addressing.

Donor-business partnerships to promote development, particularly in the area of green growth, are generally still at an early stage. For this reason, there is not yet a strong evidence base on which to assess which approaches work best and in what contexts. Although our case studies have showcased some examples of these approaches, there is as yet limited published evidence of impact – particularly independent evaluation - in relation to many of these case study examples. Thus, as a possible next step, it is suggested that we could investigate particular partnership types that are of interest to AusAid in more detail, gathering primary data and information, in order to assess impact, identify lessons learnt, and provide recommendations on potentially fruitful avenues for future donor-business partnerships to promote green growth.

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