## Summer 2015

# switchasia MAG

# **Linking Poverty Reduction** and Green Growth through SCP



Interview with the Global **Green Growth Institute** 

## **SWITCH-Asia Project Stories**



lute Diversified Products **Realising Green Growth Using Jute Diversified Products** 



Improved Cook Stoves **Recipe for Success in the Dissemination** of Improved Cookstoves





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The overall objective of the SWITCH-Asia Programme is to promote sustainable growth, to contribute to the economic prosperity and poverty reduction in Asia and to mitigate climate change. For more information, see: www.switch-asia.eu



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# Dear Readers,

Welcome to the latest issue of the SWITCH-Asia Magazine!

This second issue is dedicated to the topic of "Linking Poverty Reduction and Green Growth through SCP", following up on a successful webinar that we hosted in March 2015. Given the lively interest showed by participants, we elaborate the theme further and bring it to a wider audience.

With poverty reduction being the overall objective of the SWITCH-Asia Programme, and 2015 being the European Year of Development, we investigate how the projects funded by SWITCH-Asia approach and contribute to poverty reduction in different contexts and in their own unique ways.

In 2010, the SWITCH-Asia Network Facility published a thematic booklet on "Satisfying Basic Needs - Respecting the Earth's Limits" which outlined principles and approaches on how SCP could support poverty reduction and human wellbeing. Five years since publication, many projects have demonstrated how this can be achieved in practice.

In addition to presenting the latest success stories, this issue of the SWITCH-Asia Magazine also discusses the link between green growth and poverty reduction. As many countries in the region initiate national plans and development strategies for green growth, one of the most discussed issues continues to be how green growth addresses the objective of poverty reduction in Asian developing countries and how it can be made pro-poor. Several articles explain how this can be implemented, including through green investment decisions and policy interventions. The content in this issue clearly illustrates that multiple approaches exist to align the objectives for poverty reduction, green growth and SCP. However, further efforts and strategic approaches are still required to up-scale the success of individual best practices.

Finally, we would like to acknowledge the work on poverty and reflections on post-development of the late Professor Majid Rahnema, who passed away on 14 April 2015, and end this introductory editorial with one of his quotes: "If you are serious about poverty, you have to go to its roots and ask about the causes. One of the main causes is the creation of scarcity. Stopping the production of scarcity is key."

We hope that you enjoy reading this issue and look forward to receiving your feedback!

The SWITCH-Asia Network Facility Team, July 2015

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The SWITCH-Asia Network Facility Team 201 Uwe Weber, Kartika Anggraeni, Silvia Sartori and Patrick Schroede



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# Green growth and poverty reduction: The EU perspective

## By Thibaut Portevin

an green growth contribute to address poverty? For the EU, which precisely defines the green economy as "an economy that generates growth, creates jobs and eradicates poverty by investing in and preserving the natural capital upon which the long-term survival of our planet depends"<sup>1</sup>, the answer is a resounding yes.

The EU's domestic experience suggests that the green economy is indeed important to address poverty, mostly through economic growth in the environmental goods and services sector and subsequent job creation. The number of "green jobs" in the EU has increased from 2.9 to 4.2 million between 2002 and 2011, including by 20% during the recession years (2007-2011)<sup>2</sup>, mainly as a result of an increase in energy production from renewable sources and products for energy and heat savings. The EU estimates that up to 20 million jobs could be created in the EU by 2020 in green economy sectors.<sup>3</sup>

## Investing in the green economy to accelerate growth and create jobs ...

There are very good reasons for countries to invest in the green economy. By 2020, the market for environmental goods and services is expected to grow two to three times faster than the global economy. Initiatives such as the Asia-Pacific Economic Cooperation (APEC) commitment to reduce tariffs on environmental goods trade and the EU green goods initiative to liberalise trade in environmental goods and services are expected to create opportunities for countries and businesses which anticipate these policies as well as market changes. In a context of growing resource scarcity, it is also expected that more efficient resource use and production processes will increasingly offer competitive advantages. If we recognise that economic growth is an important factor – although certainly not the only one – to address poverty, investing in green sectors is an obvious priority.

## .... and to address the costs and risks of unsustainable practices

The transition to the green economy should not be seen merely as a "bonus" to boost growth and create jobs. It is also essential to mitigate the risk of economic downturn. Our economies rely on the natural capital and ecosystem services to thrive. But the degradation of this natural capital has a cost. It is estimated that global land use changes result in a loss of ecosystem services of between EUR 3.9 and EUR 18.3 trillion per year<sup>4</sup> – or between 5% and 25% of global GDP. Climate change adds further costs. The Asian Development Bank predicts that 'climate change will slash up to 9% of the South Asian economy every year by the end of this century, if the world continues on its current fossil-fuel intensive path'5.

At the same time, investments in polluting sectors are perceived as increasingly risky. This is notably the case of the fossil fuel industry. There are

4) Costanza & al. (2014): Changes in the global value of ecosystem services. Global Environmental Change, 26 5) Asian Development Bank, 2014: Assessing the costs of climate change and adaptation in South Asia growing concerns that some of its assets may become 'stranded' as a result of environmental challenges or climate related regulations, while the industry is also the subject of divestment campaigns.

Can countries address poverty if the natural capital on which their economy depends is damaged and if their development model generates increasing costs and risks? Accelerating natural resources consumption and minimising environmental safeguards may allow quick gains, but they are also likely to seriously constrain economic growth in the long term and to prevent lasting results in the fight against poverty.

## The green economy is relevant to all countries, although pathways have to be tailored

The potential contribution of green growth to poverty reduction is of particular interest to EU cooperation with developing countries, since eradicating poverty is the primary objective of EU development policy, in the context of which the EU finances programmes such as SWITCH-Asia. The green economy transformation is at least as important for developing countries as it is for developed economies: they face the same necessity to improve the environmental sustainability of their economy and mitigate the economic costs of further environment degradation, which, if





6) See www.unep.org/greenecond research\_products/Why%20a% LDCs-final.pdf

the poorest.

 COM(2011) 363 final. Rio+20: towards the green economy and better governance

2) http://ec.europa.eu/eurostat/statistics-explained/

index.php/Environmental\_goods\_and\_services\_sector

 European Commission Staff Working Document (2012) 92 final: Exploiting the employment potential of green growth

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unaddressed, could lock these countries

further into poverty.

In the report "Why a Green Economy Matters for the Least Developed Countries"<sup>6</sup>, UNEP stresses the importance and the opportunities for the poorest countries to transform their economies, observing that Least Developed Countries (LDCs) rely significantly on natural capital assets, on which their green economy can be based, and have a large potential for renewable energies. The report also argues that, "while other countries face sizeable economic and social costs of 'decarbonisation', alongside costs linked with retiring inefficient fossil fuel-based technologies, LDCs can jump start the green economy transition by maintaining and expanding the sustainable practices that already exist". This includes practice in sectors such as agriculture or forestry which play a major role for the livelihood security of

The transformation process can obviously not be the same for all countries. Public and private sector capacities as well as finance should obviously be taken into account. In Asia, this has translated into different plans and approaches. For example, Cambodia has formulated a national green growth roadmap that emphasises addressing the needs of all, including the most disadvantaged; China has committed to green growth in its 12th Five Year Plan, with actions that include investing in natural resource management, with the aim of creating one million forestry jobs and reducing rural poverty; and South Korea has adopted a green growth strategy focused on economic competitiveness through development and use of advanced technologies<sup>7</sup>.

Photo: iofoto / Fotolia.com

reeneconomy/Portals/88/documents/ /hy%20a%20GE%20 Matters%20for%20  Source: Green growth best practice, 2014. Green growth in practice: lessons from country experiences

## Can the poorest also benefit from green growth?

Green growth holds promise to deliver benefits to people, including the poorest. This includes direct benefits such as job creation or access to clean energy, as well as indirect benefits such as the mitigation of negative consequences from climate change, including exposure to hazards and disasters, to which the poorest are more vulnerable. By the same token, maintaining the natural capital and ecosystem services can be important to forest and coastal communities who rely on forest products and fish stocks for their food and income. This is very much the case in Asian countries like Indonesia, where forestry and fisheries contribute to the livelihoods of millions. Health benefits resulting from an improved environment, in particular air quality, are also important to the poorest who tend to be more exposed to pollution hazards and do not have access to proper medical care.

At the same time, the prospects of economic growth and benefits do not exclude the possibility that the

bring adverse impact on the poorest. For example, the phasing out of fossil fuel subsidies is likely to lead to an increase in energy prices, which sends the correct signal to upper and middle classes, but can also lead to adverse effects such as inflation for the poorest. Additionally, in many sectors of activity, the adoption of new practices or standards to improve efficiency and sustainability can be difficult, at least during the transition phase, for the poorest segments of the population who often lack resources to adapt. It should also not be assumed that economic growth in relevant sectors, although it should contribute to job creation, will automatically contribute to more social equity and protection for the poor.

green economy transformation can

Relevant pro-poor measures are therefore essential; both to ensure that green economy related initiatives contribute coherently to development objectives and to encourage the social and political acceptance of necessary reforms. Possible measures contributing to this imperative include, for example, assessing the impact of the green economy transformation on the vulnerable

groups, securing rights to land and property, building resilience to disasters, reducing inequalities in access to education and vocational training, facilitating access to clean sources of energy and water for the poorest, ensuring that green jobs are also decent jobs, and many others.

## SWITCH-Asia shows the way

Stronger attention to green sectors and more environment friendly practice therefore appear essential to create an economy that is resilient and grows sustainably, and ultimately reduces poverty. Projects funded under the SWITCH-Asia programme contribute to this objective. The focus on key economic sectors that employ millions and on SMEs that create jobs, as well as the support they provide to relevant stakeholders, including the poor and those who work in the informal economy, contribute to ensuring that the green economy is inclusive and provides opportunities for all. They also contribute to showing that the green economy is not only for the rich: it is becoming a reality for many.



## **Thibaut Portevin**

Mr. Thibaut Portevin is Policy Officer for forestry and green economy at the European Commission, DG DEVCO. The thematic unit deals with climate change, forestry and biodiversity, where he currently elaborates DEVCO's approach to the green economy in development cooperation and supports the implementation of the EU Action Plan on Forest Governance, Law Enforcement and Trade.

# A meeting point for green growth, poverty reduction and SCP

## An Interview with Ms. Inhee Chung, Global Green Growth Institute

## By Kartika Anggraeni and Patrick Schröder

On 24. March 2015, the SWITCH-Asia Network Facility organised a webinar on how sustainable consumption and production (SCP) links to green growth and poverty reduction. Present was the Global Green Growth Institute (GGGI) as represented by Ms. Inhee Chung and Mr. Thomas Nielsen, providing deeper insights into the topic. In this issue of the SWITCH-Asia Magazine, we go deeper into the topic and interview Ms. Inhee Chung to learn more about GGGI's strategies and activities in Asia to promote cooperation and collaboration for green growth.



## **SWITCH-Asia Network Facility:** Could you please share with us what the Global Green Growth Institute (GGGI) is and what it does?

Inhee Chung (IC): The Global Green Growth Institute (GGGI) was established with the ambition to be a new type of international organisation dedicated to supporting and promoting inclusive and sustainable economic growth in developing countries and emerging economies. In operation since 2010, GGGI currently has more than 30 programmes in over 20 countries

and has witnessed the green growth paradigm becoming an attractive opportunity for countries to achieve poverty reduction, environmental protection, resource efficiency and economic growth in an integrated manner. GGGI supports partner countries to develop green growth strategies, policies and plans, either at the national or local level, that deliver these goals simultaneously, while accelerating investment in resource efficient technologies and industries that support green growth ambitions.

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## Why green growth? What does the term mean and how does it differ from other terms such as sustainable development?

IC: Green growth, green economy and sustainable development essentially share the common vision of simultaneously achieving poverty reduction, social inclusion, environmental sustainability and economic growth. The subtle difference may lie in the operationalisation of this vision at the country level, as the main aim of a green growth strategy is to provide a clear framework for how countries can translate the global vision into their national development strategy and action plan. Sustainable development, the term which has been around the longest and is thus most familiar, represents a grand paradigm linking

economy, society and environment, whereas a green growth strategy proposes a policy framework. In that sense, green growth is more concrete and results-oriented. In other words, green growth strategy contributes to a sustainable development by providing an actionable policy framework to generate conditions for promoting new, greener and more inclusive sources of growth.

## What conditions are necessary for achieving green growth on country and local levels?

IC: First and foremost, achieving green growth in a country requires strong leadership and commitment from the highest levels of government. In Ethiopia, for example, the late Prime Minister, Meles Zenawi, played an instrumental role in putting Ethiopia on a climate-resilient green development path. This was an important trigger for high-level engagement and policy actions across ministries as implementing green growth requires a concerted effort from different ministries. In the Philippines, the Mayor of San Vicente municipality in the Palawan province strongly supported the adoption of the Eco-Town Framework, which seeks to

"climate-proof" their development plan while seeking green growth opportunities that will benefit the villagers dependent on marine resources and indigenous communities whose main livelihood comes from forest resources.

## At GGGI, how does green growth relate to social development and poverty reduction?

IC: Reducing poverty and achieving shared prosperity will require more than economic growth. It will require pro-poor and socially inclusive policies to be sustainable. In many developing countries, natural resource depletion, ecosystem degradation and pollution, and climate change can have direct and indirect impacts on poverty and shared prosperity. First, the poor may be most affected by their impact, as they often live in the most fragile areas and have the fewest resources to help them cope and adapt. The poor also rely on natural resources for income generation that support their livelihoods. Second, these challenges can undermine a country's ability to sustain economic growth, which can make poverty reduction and increasing shared prosperity more complicated.

## Please share with us your experience working with governments in Asia to achieve 'green growth.' Is there any trend in certain green growth strategies or approaches?

IC: In Asia, GGGI is working with governments in the following countries to help them realise their green growth vision: Thailand, Vietnam, Cambodia, the Philippines, Indonesia, Mongolia, China and India. There is no "one-size-fits-all" approach to green growth despite the commonl geographic region. Formulating national green growth strategies will depend on the level of commitment from the government, the current development status of the country, the country's environmental and social risks and opportunities, and the political and cultural characteristics of the country. Together with these considerations, the green growth drivers will also differ from country to country. For example, in countries like Mongolia, Vietnam and China, we are working on a national green growth strategy adopting a more top-down approach, whereas in countries like the Philippines and India, we are working with municipalities to test our green growth methodology with a view to gradually scaling up to the provincial and national levels.

## What current cooperation models are established, especially in Asia, in order to achieve green growth? Who are the main players and what does the institutional landscape look like?

IC: The main cooperation is with the host government. An important aspect that sets GGGI apart from other similar international organisations is that we are seamlessly embedded in the government, with whom we come to the drawing board to devise a green development path that fits the needs of the country. GGGI also acts as the "trusted advisor" to our partner government and provides advice based on robust analysis and consultation with stakeholders including the private sector, civil



society organisations and development partners.

## Against this backdrop, what are GGGI's plans in near future?

IC: Be it at the country office or at Seoul headquarters, GGGI works side-byside with our government partners to develop the green growth strategy and action plans, to carry out macro-economic assessments and sectoral policy analyses or to develop frameworks for appropriate financial resources to support on-the-ground-implementation of green growth plans. GGGI also shares lessons learned in one country with other countries through the South-South or South-North-South Cooperation programmes or global knowledge sharing platforms, such as the Green Growth Knowledge Platform (GGKP, see www.greengrowthknowledge.org), a joint initiative with OECD, World Bank and UNEP.

## As GGGI works mostly with governments, how do you engage policy makers? Could you give us an example of a successful green growth policy that has been formulated and implemented in an Asian country context?

IC: As mentioned earlier, GGGI's engagement is not only with the central government, but also at the provincial or municipality level, directly with policy makers. In the Philippines, the Eco-Town model has been reflected in the San Vicente municipalities Comprehen-

sive Land Use Plan and Comprehensive Development Plan. In Indonesia, we are working with Central and East Kalimantan provinces to transition from an extractives-based and resource-intensive phase, into a new phase defined by green growth and sustainable development values.

## From your experience, what are the main opportunities and hurdles for a country to pursue a green growth? What can countries do to tap the potential and overcome barriers?

IC: The main challenges and opportunities for a country to pursue a green growth path can be a mixture of elements including the political will of the government, lack of capacity in institutions and SMEs, and the lack of good green growth plans and projects that can attract private and public financial resources. GGGI's main mission is to

Cambodian solar cookers





bridge the gap and build capacity in

our partner governments to overcome these barriers and capitalise on green growth opportunities that make sense for the country, people and investors.



## **Inhee Chung**

Inhee Chung is the Senior Sustainability and Safequards Specialist at *GGGI*, working with country teams to incorporate environmental and social safequards considerations, including poverty reduction, into GGGI programmes and projects.



**SWITCH-Asia project Jute Diversified Products** 

# Realising green growth using jute diversified products

By Md. Mahbub Ullah



ute, the Golden Fibre of Bengal, is an environment-friendly agricultural product. The importance of the jute industry to the Bangladeshi economy cannot be over-stated; it is a major cash crop for over three million small farm households, the largest industry, producing about one-third of manufacturing output, and the largest agricultural national export commodity. The livelihood of some 25 million people (almost one-fifth of the total population) is dependent on jute-related activities n agriculture, domestic marketing,

, retting, drying and marketing







manufacturing and trade<sup>1</sup>. Preserving the jute industry and improving its environmental impacts is therefore vital for Bangladesh to realise green growth whilst reducing poverty.

Little has been done in terms of investment and diversification, leaving ample room to improve jute fibre, make good quality seeds available and improve the retting system. It is also important to develop jute diversified products (JDPs), as so many rural poor communities, including women, depend on jute.

## Jute value chain

CARE France is implementing the SWITCH-Asia project entitled "Promoting Sustainable Consumption and Production of Jute Diversified Products" established in March 2013 with the objective to contribute to pro-poor economic growth through social business promotion, emphasising sustainable agriculture sector growth and poverty reduction in Bangladesh. The project directly links 16,000 jute producers, 60 organic fertilizer producers, 2,000 JDP workers, 20 SMEs, 3 jute mills and other national associations and public agencies active in the national jute sector.

## **Community-based** approach

The project is being implemented in the north-west and south-west regions of Bangladesh covering 40 unions in 4 districts. The project activities capitalise on community-based platforms to mobilise jute growers into producer groups and to develop producers' capacities and productivity in production, postharvest management and processing. Business and market intermediaries are engaged for value addition, processing and diversification of jute products. The project has already created increased demand for jute products by promoting better cultivation processes thus contributing to eco-friendly agriculture practice, improving the efficient use of natural resources and reducing greenhouse gas emissions. Meanwhile, the project has developed momentum, directly linking jute farmers with jute millers, developing skills of JDP workers, production of organic fertilizer, enabling savings for producer groups through realising their capital needs and identifying avenues for local, national and international markets to sell JDPs more profitably.



## **Producer groups** and saving strategy

Working directly with jute producers, in 2013 the project mobilised 10,000 farmers resulting in 400 producer groups. The following year another 6,000 farmers joined the cause and formed 240 new groups. Based on this success, a database of 16,000 jute producers was compiled covering their livelihoods and other socio-economic aspects. Training on environment friendly jute cultivation, retting and harvesting techniques was provided. Value chain facilitation training was also offered to producer group leaders, and 40 workshops linked up village community groups with the producer groups. Together the project and producer groups developed a saving strategy; up to December 2014, 344 jute producer groups and JDP worker groups saved BDT 1,674,914 (EUR 18,205) and this process is continuing.

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## Women's group growing organic fertilizer

Realising women's role in advancing the jute industry, 60 women working as organic fertilizer growers have been trained and they now produce organic fertilizer for jute cultivation, earning a sales profit of BDT 27,850 (EUR 290).

## **Facilitating supply** and demand

The project also works to streamline the jute supply chain, first by establishing linkages with private and public agro-dealers and extension service providers. Linkages were also established between producer groups and jute mills. In 2014, the project facilitated several meetings for Akij Jute Mills, Ayan Jute Mills, SR Jute Processing and 45 local jute traders, which developed and strengthened linkages between jute producer groups, local traders/ intermediaries and jute mills. Now farmers can sell their jute fibres directly and receive an increased price: previous price / original market price for 40 kg fibre was BDT1,025 (EUR 11,78) and, after the farmers sold JDPs directly to Jute Millers, the price of 40 kg fibre was BDT1,080 (EUR 12,41).

## **Addressing workers**

Given the importance of SMEs in developing economies, it is crucial to build their capacity. 80 JDP worker groups were formed and 2,000 JDP workers trained. A two-month long basic training was provided to produce better jute diversified products. Complementary skills to align them with the SMEs were also addressed, i.e. employment generation, fulfillment of new orders. To further support the Bangladeshi jute industry, the project mobilised a wide circle of stakeholders through project results, e.g. study results, baseline assessment report, and an organic fertilizer manual. Training modules with flipcharts on "Modern Jute Cultivation, Retting and Harvesting Techniques" were also produced.



## **Making impacts**

The project has resulted in some signif-





icant impacts. Firstly, it increased the jute cultivation area: in 2013, producers cultivated jute over 2,034.21 ha of land, while in 2014, 2,111.5 ha, an increase of 77.29 ha. Secondly, it provided farmers with better cultivation practice: for the first time, in 2014, 860 farmers practised line sowing. This practice has brought positive impact among the practitioners and other farmers, as per hector line sowing saves BDT 99 (EUR 1.15) from seed cost and BDT 2,766 (EUR 32.20) from labour cost, and produces 321 kg more fibres and 173 kg more jute sticks. Thirdly, the project helped increase productivity: in 2014, the farmers produced 4,000 tonnes of fibres which is about 797 tonnes more than previous year's production (3,203 tonnes). Fourthly, the project helped reduce agriculture-related CO2 emissions: in 2014, 2,111.5 ha were used for jute cultivation which is 77.29 ha more than previous year. In 2013 (first year of this project), 30,513.15 tonnes of CO2 had been absorbed by cultivating jute over 2,034.21 ha of land. In 2014, 31,672.5 tonnes of CO2 had been absorbed, which is 1,159.35 tonnes more than in 2013.

## The way forward

The SWITCH-Asia Jute Diversified Products project is now moving forward to expand the market chain from local to international levels through direct partnerships with small JDP entrepreneurs in rural and urban areas to meet the demand of the high-end market chain. The project is strengthening capacities of these entrepreneurs to expand their production, while also developing their linkages with the end market supply chain in Europe and Asian countries. There are opportunities to develop enterprises at local and national levels in production of JDPs that include a large variety of items ranging from different types of

jute bags, carpets, tapestries, mats, rugs, floor coverings, footwear, wallets, curtains, home textiles, apparel, wall hangings, bags, jewellery, table lamps, particle board, composites and geo-textiles. These actions will strengthen the export competitiveness of the SMEs through promotion of environment friendly jute diversified products and, in turn, help achieve green growth in Bangladesh.

The project partners work to ensure an enabling environment for sustainable business promotion of JDPs in Bangladesh beyond the project's life, where environment-friendly and sustainable use of low cost green products will be promoted through enhanced



production and consumption of JDPs. This in turn will strengthen sustainable consumption and production through promotion of diversified use of jute in Asia and Europe.

Md. Mahbub Ullah, Team Leader SWITCH-Asia Jute Diversified Products project, CARE Bangladesh

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## SWITCH-Asia project Improved Cook Stoves

# A recipe for success in the dissemination of improved cookstoves

## A case study from Lao PDR

By Bastiaan Teun

he use of inefficient cooking fuels and technologies poses pressing health and environmental problems. Around three billion people - most poor and living in low- and middle-income countries – still rely on solid fuels in open fires and traditional stoves. According to the WHO, 4.3 million people annually die prematurely from illness attributable to indoor air pollution.

Against this backdrop, the SWITCH-Asia project Improved Cook Stoves (ICS) works to improve the environmental as well as health situations in Lao PDR. The *ICS* project is one of the few initiatives in the Mekong sub-region that aims at mass dissemination and uptake of improved cookstoves while contributing towards poverty alleviation in Lao PDR through the development of a sustainable consumption and production chain of fuel efficient ICS. This, in turn, will reduce the use of wood and charcoal and lower greenhouse gas emissions.



STREET, MILLING

Description of the improved cookstove

## **The Improved Cookstove** Project

A feasibility study in 2010 made clear that people were not satisfied with their cookstoves, as they broke down too easily, consumed too much fuel and were inconvenient. At the same time, the supply side was hampered by price competition and the lack of standards and testing capabilities. A strategy was thus formulated to develop a value chain for long lasting, fuel efficient and convenient cookstoves for wood and charcoal. Over the last two years, 26,169 improved cookstoves were manufactured by 16 producers in four provinces, sold by over 375 retailers.

## Stove testing and consumers' satisfaction

The ICS project invested in training for stove testing, and now successfully operates three test labs across the country, which show that an improved version of the 'Tao Payat' stove has the potential to save 18-39% fuel. Experience has shown that even when distributed at a higher price (EUR 5 versus EUR 3.15), higher quality stoves with reduced fuel consumption and a longer lifetime are still in high demand.



## **Supply side interventions**

Before initiating capacity building, the project invested in understanding the operation and management capacity of existing producers. The producers received extensive training and coaching support, and were therefore better aware of quality standards and the potential profit margins to be made. The project encourages producers to invest in equipment and workshop improvements by covering up to a maximum of 50% of the costs. In most cases, an investment of EUR 2,700 - 9,000 is required, demanding a contribution of EUR 1,350 from both parties, with producer loans available from national banks like ACLEDA.



The project will soon support the creation of an association of ICS producers able to self-impose quality standards and lobby for a more favourable environment, including minimum prices, greater access to finance, and strong linkages between producers and retailers. The project also focuses on investigating available retailer networks; stove sales and prices. 375 retail shops were identified in three provinces, which are owned by women, selling an average of 20 units per month for a price around EUR 4.5 per stove, at a margin of EUR 0.9. A similar but smaller stove retails for EUR 3.6 with a similar margin. The ICS label is recognised as an important asset that helps customers identify different stoves.

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## Lessons learnt for ICS initiatives worldwide



**Cementing multi-stakeholder** cooperation through flexible arrangements

In order to build local capacity, the Lao *ICS* project chose to rely as much as possible on existing knowledge and to strengthen competences around cookstove testing. At the local operational level, flexibility was key, for example through short time output-based contracts which help formulating realistic expectations. As a result of this open approach, the Lao ICS project is able to further build upon its fruitful partnership with the Lao Women's Union in awareness-raising activities whereas the Lao Ministry of Science and Technology offers testing services.



## Time, long-term finance and harmonised donors

A solid feasibility study clearly laid out risks and assumptions during the first year, followed by a selection of viable partners. A two-year pilot phase was then implemented for all stakeholders to practise and learn. In 2013, the project was up-scaled nationally through peer-training and interprovincial cross linkages. The project can now depend on national champions of change among producers, retailers, testers and policy makers who are able to disseminate skills and knowledge and



provide inspiration. The Lao programme was funded by SNV and Oxfam during 2011-2012 and is currently funded by the EU, Oxfam and the Blue Moon Fund for the 2013-2017 period. It is essential to secure a long-term financing for the overall project activities. Therefore, the project focuses on building consensus, continuity and trust among its various donors, to prevent market disruption, a clouded investment horizon and counterproductive incentive schemes for stakeholders.

## Building proof monitoring and evaluation

3. ICS monitoring systems keep track of improved cookstoves by recording serial numbers of stoves, linking to information on producers, retailers and users. In Lao PDR, despite initial difficulties in making retailers want to collect customer data, a solution was found by leveraging national excitement around lotteries. Stove buyers are invited to complete a voucher at the time of purchase, which is then placed into a box and kept with the retailer. The vouchers are regularly collected by project staff to add to the database, and lottery winners are drawn biannually. Thus far, 25% of the stoves can be traced back to the user, a number significantly higher than the anticipated 5%. Telephone numbers make it possible to conduct telephone surveys, providing valuable market intelligence to further hone the project.

The Lao *ICS* project, alongside the experience gained in other countries, provides valuable lessons to accelerate the uptake of ICS worldwide as an SCP practice that contributes to poverty reduction and green growth.



- www.facebook.com/
- improvedcookstoves
- http://icslao.info
- www.snvworld.org

## Lao PDR

Lao PDR is a vast country with a population of just 7 million, leaving 1 square km for just 26 people (against 262 in neighbouring Vietnam). Its economy is reliant on the exploitation of its natural resources through mining, logging and hydroelectricity. The latter enabled the expansion of an electricity grid that goes far into rural areas. With a 7% growth rate, the country's on the way to move from its 'Least Development Country' status.

The rural and urban population in Lao depends primarily on wood and charcoal for their cooking needs. Biomass accounts for almost 70% of the nation's overall energy consumption, resulting in high external costs, environmental degradation, and 2600 annual deaths from air pollution.

In 2011, the Ministry of Energy and Mines issued a Renewable Energy Strategy intending to make 30% of the country's energy sources renewable by 2025. Chief priorities however include biofuels, small hydroelectricity and biomass. The Ministry of Environment mentions the development of stoves in its Strategy on Climate Change.

As in many countries, the fuel mix used in Lao kitchens consists of a variety of sources primarily comprised of biomass, wood and charcoal; agricultural residues, and LPG, electricity and biogas are used to a lesser extent. Charcoal prevails in 88% of kitchens in the intervention area, with an average monthly consumption of 40 kg, against some 10 USD/month. Wood is used in 48% of households and, with a large variation,

## **Development of the Improved Cook Stoves initiative**

During the first two pilot years (2011-2012), the ICS initiative focused on capacity development of project staff and established linkages with stakeholders, one priority being stove testing. It tapped different national and international expertise, and adopted a 'learning by doing' approach. Through R&D and trial and error, an improved stove design was developed as well as a series of assumptions around adoption, actual usage, fuel savings and marketability and profitability. The current period (2013-2017) aims to upscale the market for ICS. The ICS project currently offers two models of charcoal stoves, the one for wood still being in its prototype phase.

The overall objective of the Improved Cook Stoves (ICS) project phase 2013-2017, financed by the EU-funded SWITCH-Asia Programme, is to contribute towards poverty alleviation in Lao PDR through the development of a sustainable consumption and production chain of fuel efficient ICS which will reduce the use of wood and charcoal and lower greenhouse gas emissions. The ICS project's *key objectives in 2013-2017 include:* 1. 15 producers sustainably produce

- 100 000 ICS;
- 2. 150 SME retailers successfully promote the ICS;
  - 3. Lao Women's Union assumes its role as promotional partner;
  - 4. Five testing agencies are operational; 6. National standard of stoves is endorsed;

  - 7. Multi-stakeholder partnership establishment.

Feasibility study Implementation plan SNV Oxfam WWF



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this is in the range of 150 kg/month. Wood is normally collected rather than purchased, a task that requires 13.5 to 16 hours per month. Availability and affordability of wood and charcoal are highly variable. Charcoal is the preferred fuel for several speciality meals, and is therefore used regardless of the availability of clean cooking options, even in higher end households. (Source: Bastiaan Teune)

Achievements as per December 2014 are as follows:

- 1. 16 producers actively producing ICS;
- 2. 375 retailers selling ICS in their small shops;
- 3. The Lao Women Union conducted 26 demonstration workshops;
- 4. The Ministry of Science and technology operates three test labs;
- 5. National standards are under preparation;
- 6. Multi stakeholder meeting conducted twice a year.

011-12 Pilot phase: 1,500 stoves Oxfan SNV ARMI

013-16 Scaling up phase: 100,000 stoves EU SWITCH Blue Moon Fund SNV ARMI

SWITCH-Asia project Sustainable and Efficient Industrial Development (SEID)

# Escape from the cycle of poverty

**Experiences from the SEID project in Bhutan and Nepal** 

By Myung-Joo (MJ) Kang and Robert Wimmer

SWITCH-Asia Summer 2015

hutan and Nepal are among the world's least developed countries D with low gross national income, weak human resource development, and high economic vulnerability. GDP per capita in Nepal is EUR 595, and unemployment 41%<sup>1</sup>. Both urban and rural dwellers suffer from frequent power cuts and poorly managed distribution of water. Bhutan's economy depends heavily on imported goods and services, and local enterprises struggle to create their own competence – a decisive prerequisite for the future sustainability of the economy and society.

## The economic phenomenon, "cycle of poverty", exists not only at the family level, but also at the country level.

Poor infrastructure, weak governance, limited access to finance, and a lack of awareness of improvement measures are often cited as the main factors inhibiting change within Nepalese industry. In the midst of struggling to generate income for survival, environmental improvement is still regarded as a far-fetched luxury by micro and small establishments. Poverty and environmental problems are also likely to continue over generations, unless appropriate interventions are made.

To break this cycle of poverty and tackle the environmental problems is, in a nutshell, the objective of the EU SWITCH-Asia Programme. Within this, the Sustainable and Efficient Industrial Development (SEID) project has implemented various measures since 2012, including: 1) direct support for micro, small and medium-sized enterprises (MSMEs) to reduce production costs by saving resource and energy through no or low-cost measures, 2) capacity development of local engineers and







Before and after: installation of a cover for the belt conveyor based on SEID's consulting in RSA-Crushing Unit, Bhutan (Source: SEID Nepal & Bhutan)



entrepreneurs, 3) awareness raising and replicating of appropriate SCP practice, and 4) strengthening institutional mechanisms to integrate SCP practice in business.

SEID focuses on the tourism and agribusiness sectors, which are dominated by MSMEs and have considerable potential for income generation, thus contributing to green growth and poverty reduction in both countries. Teams of trained Local Consultants (LCs) and international technical experts provide each registered MSME with a series of consulting programmes, including initial audits, technical investigation and recommendations through reports in-house training, marketing of green products, and monitoring. Interventions for resource and energy saving, efficiency improvement, water and waste management, installation of better technical solutions, and higher standards of occupational health and safety resulted in cost savings, improved quality of services, and a cleaner and safer working environment. They also

influence other stakeholders along the value chain, including travellers who use accommodations or restaurants.

gions – Kathmandu, Bhaktapur, Pokhara, Ilam & Jhapa, and Chitwan in Nepal, and Thimphu, Paro and Phuentsholing in Bhutan, have benefited from SEID. Encouraging results are already being reported. Creating SCP best practices has been the key to its replication. For example, the dust collection system installed at Laxmi Beaten Rice Industry in Bhaktapur, a UNESCO World Heritage Site, instantly motivated other companies with similar dust problems and noise issues. The bespoke dust collector is designed by appropriate technology experts and made from locally available low-cost materials, and reduces dust by over 80%, significantly improving the work environment as well as the company's image. The company now collects the dust as a valuable by-product and sells it for 15 NPR (EUR 0.15) per kilogram as feedstuff. SEID organised a site visit and seminar for over 20 local rice



20 All pictures are made available by the "SEID" project

1) World Statistics Pocketbook/ United Nations Statistics Division

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So far, 200 companies in different re-

Dust emission from the rice rolling process has been . eliminated



mills, resulting in many CEOs stating that they would adopt the same solution.

It is equally important to train local manpower, as countries rely on the competence of the younger generation for their future. SEID has trained over 90 young engineers, faculty members from the college of science and technology, and technical staff from the industries and business associations through a series of intensive training programmes. Pertinent soft skills were also addressed, such as communication with entrepreneurs, writing reports and working in teams. After three years of continuous capacity development, 25 trained LCs actively consult with MSMEs for SCP implementation, ranging from simple behaviour change to sophisticated technical intervention requiring precise measurement. Behaviour changes include regular cleaning of the surface of solar water heaters, cascade use of water for washing, and covering lids of processing unit, thus contributing to saving water and electricity. Erecting awnings over refrigeration units, repairing leaking nozzles of diesel burners or steam pipes, and replacing rubber belts for motors require a modest investment with a short payback period. LCs have developed wide-ranging competence during the last three years, and are now able to identify specific problems and recommend appropriate solutions across a myriad of industries.

In order to facilitate the adoption of technical solutions that save resources, increase efficiency and use renewable energy, SEID has compiled a Green Tech-



nology Catalogue (GTC), with regular updates. Similarly, available national finance programmes are promoted to MSMEs by LCs, who also function as the technical supporter for companies applying to the programmes, such as the Nepali government's subsidy for biogas digester through the Alternative Energy Promotion Centre (AEPC). Relevant recommendations and instructions for monitoring resource consumption have also been compiled in an "SEID manual" to be distributed to 1,000 MSMEs and business associations.

Thanks to SEID, the annual cost savings from the first batch of 20 MSMEs has been calculated at approximately EUR 4,500 in Nepal. In terms of resources and emissions, 6,000 kg of CO2, 35,000 kWh electricity, and 400,000 litres of water are being saved every year. The figure will multiply as the analysis of savings in other member companies continues. In Bhutan, if the 17 hotels and 21 other small and large industries implement all the recommended SCP practice, the savings are up to EUR 650,000 per year.

During field work in Nepal, the SEID project team found that many MSMEs do not comply with rules and regulations concerning environmental conservation and health & safety, such as the Environment Protection Act & Rules (1997). Waste water directly runs to the sewage works without treatment; workers suffer from dust and heat exposure due to poor production facilities; hotels and restaurants focus on hotel rating standards, whilst causing pollution and neglecting scarce resources. Another measure that SEID has taken to pursue green growth is to help policy institutions and business associations to establish and promote workable rules and regulations, whilst encouraging

MSME compliance. Based on practical experience, *SEID* suggests appropriate improvements to policy makers, to increase acceptance of and compliance with institutional mechanisms. For instance, *SEID* proposes resource and energy efficiency measures for integration in existing rating standards.

The past three years have identified numerous challenges in both countries, including knowledge transfer regarding appropriate use of renewable energy sources. Streamlined push and pull strategies for effective implementation of policy programmes are required, similarly access to finance to encourage MSMEs to adopt innovative green technologies. With the recently announced<sup>2</sup> tripling of EU support for Nepal and Bhutan, with best practice from the *SEID* project, the fight against poverty and the move to implement green policies will be strengthened.



## FOR MORE INFORMATIO ABOUT THE PROJECT:

- www.switch-asia.eu/ projects/seid
- http://switch-seid.org

The SWITCH-Asia webinar on SCP practice for socially inclusive green growth

# How green growth can drive poverty reduction – and why it does not do so automatically

By Sebastian Philipps

Does green growth automatically imply poverty reduction? How can practices from the field of sustainable consumption and production (SCP) facilitate poverty reduction in a green growth scenario? More than fifty professionals discussed these questions during the course of an interactive webinar hosted by the SWITCH-Asia Network Facility on 24 March 2015.

ob creation is the most frequently proposed positive effect of green growth on the poor. Jobs matter to everybody. Jobs are an indicator for economic and social development that people can relate to. But how important is stopping environmental degradation that hits hardest those who cannot invest in protection and insurance? And, how does a new green growth paradigm change the notion of poverty and wellbeing – who will be poor in a world that re-defines what makes us rich?

# Interesting insights stemming from a rich debate

The webinar offered interesting insights around these questions. Speakers and the audience agreed on the need for future economies to be green. The question how to design, monitor and manage green and pro-poor growth trajectories, however, demands additional attention.

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## "How does green growth contribute to poverty reduction?"– "[By] creating new jobs."

This was a frequent suggestion by participants in an open poll prior to the webinar.

Policies and projects need to pay more attention to indicators, in order to drive poverty reduction reliably through green growth. They also need to develop more complete narratives of what poverty reduction entails in terms of strengthening social inclusion and mitigating adverse effects on the poor. Policymakers and project designers will need to embrace these new narratives where they lack indicators.

## The importance of SCP practice

Sustainable consumption and production (SCP) practice represents a sound context for developing strong narratives of how green growth can drive poverty reduction. To tie environmental and social concerns together in an economically viable manner, green business cases and green lifestyles need to become viable in the context of economies and societies along international value chains. Mainstreaming such SCP practice demands policy frameworks, testing and capacity building on the ground, investment, and international demand for sustainable goods and services. The four speakers of the webinar covered all these dimensions, and engaged in lively discussions with the audience.

## Development cooperation between policy frameworks and implementation

How do we define and measure poverty reduction in the context of green growth? Which risks do we have to consider? How do we frame the business case, and what is the way forward? The audience used the first two presentations to raise a series of questions and comments around these themes.

During the subsequent discussion, Thibaut Portevin (European Commission, DG DEVCO) called for making the green economy business case more tangible. In his presentation, Mr Portevin emphasised the clear relevance of the green economy concept for the European Commission with regard to both their domestic policy as well as to their Agenda for Change abroad.

Ms Ismat Jahan (Traidcraft Exchange) offered insights to the implementation level. During the SWITCH-Asia Eco Jute project, they had used a set of simple indicators to assess social effects. They had found that tangible and tacit effects of green growth are often interwoven. Against this backdrop, Ms Jahan joined Mr Portevin's call for more substantive indicators. At the policy level, these indicators will need to fit the international discourse, for instance, around the sustainable development goals. At the project level, they will need to be applicable and affordable given budgetary constraints.

## What will work in the marketplace? Adding the views of investors and international buyers

How will policies for socially inclusive green growth resonate? Will SMEs boosted by technical assistance projects find investors and customers, once EU funding ends? The second panel discussion took a closer look at these questions and, like the first panel, revealed a clear desire to make the link between green growth and poverty reduction

"I will start from our SWITCH-Asia funded project: we will analyse if we can immediately use some of the information and ideas (...). We will also share with partners and stakeholders what we have learned."

A participant answering the question as to what they would do next after the webinar, via a feedback form.

more tangible. Eduardo Escobedo works with large luxury goods companies that want to actively sustain their sourcing base but lack insights in raw material extraction by the local communities from whom they source. Mr Escobedo's Responsible Ecosystem Sourcing Platform (RESP) seeks partnerships with the scientific community and other stakeholders to close this knowledge gap. Ms Deborah Lilienfeld-Aragão from Flora & Fauna International (FFI) needs even more information. As manager of FFI's Oryx Impact Investing Fund, she identifies economically viable investment opportunities with a positive impact on biodiversity and local communities. Building up a EUR 900,000 pilot portfolio in Indonesia, FFI relies on domestic network partners. For future evaluation and replication, however, they work on their own impact assessment scheme. Clearly, market actors share the interest of policymakers and technical assistance organisations in tangible links between green growth and poverty reduction. What needs to

happen for all these actors to agree on one set of indicators, and who drives the process? Cooperation takes time. It could be driven by those who simply try it.

## Waiting for the perfect indicator will not bring us forward

The world will not wait for perfect indicators on poverty reduction driven by green growth. And even with indicators at hand, poverty reduction will not happen automatically. So what can we do in the meantime?

Speakers and webinar participants came up with a range of ideas on how to strengthen poverty reduction in the context of green growth. Figure 1 shows a collection of these leverage points, and arranges them according to their level (policy or implementation level) and scope (regional/programme or project/national). Behind the selection, three recommendations loom large that are not new but still challenging to implement:



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First, making green growth a driver of poverty reduction, needs cooperation across all sectors and levels. This, for instance, refers to mainstreaming the concept across political agendas, including it in trade agreements, and establishing international standards along value chains at the industry level. **Second**, partners must address the knowledge gap together. Initiatives need to establish ways to reward the monitoring of socially inclusive green growth, for instance via supply chain finance. Policies need to mitigate adverse effects of green growth on the poor. They also need to take into account costs that are born by the poor but not reflected by markets that exclude them. **Third** and perhaps most important, in the absence of perfect indicators, producers, investors, and technical assistance projects need to test new approaches now. This will help to develop narratives of change around new sustainable business models and lifestyles or, in other words, around innovative SCP practice.

A webinar follow-up

# Green growth through reviving the jute sector in Bangladesh and West Bengal, India

By Ismat Jahan

ute: An eco-friendly alternative for a *sustainable future*, or shortened to *Eco-Jute*, is a SWITCH-Asia project that started its activities in Bangladesh and India's West Bengal in 2010 and was completed in 2014. The project addressed the jute sector to bring forward sustainability issues in both jute-producing countries. Since it is hard to talk about sustainability in developing countries without dealing with economic issues, Eco-Jute attempted to deal with both by promoting sustainable production and consumption in the jute sector, which affects millions of lives in the two countries. At its core, achieving sustainability in terms of the environment, society and economy is what green growth is all about.

## **Engaging jute producers**

Working on the supply side, Eco-Jute provided capacity building to over 160 jute SMEs: around 70 in Bangladesh and 90 in India. At the same time, the project engaged with policy makers to engender enabling situations for the new practices. The *Eco-Jute* project organised a range of needs-based trainings and mentoring support for the SMEs through a pool of trained service providers. This attracted positive responses from SMEs, especially the mentoring support on production and business related topics like design, pattern making, quality, obtaining District Commission (handicraft) Registration, trade licences, artisan cards, etc. The project also provided support on eco-friendly production processes and calculated Carbon Foot Print (CFP) of selected SMEs. To help SMEs innovate with product design, the project organised the so-called "design interventions". Working with an Asian design consultant, 30 Bangladeshi and 10 Indian SMEs developed 193 new ranges of jute diversified products (JDPs) for local consumers, and later 21 Bangladeshi SMEs further developed 51 ranges for institutional buyers. Support also came from Europe where an international designer worked with 7 Bangladeshi and 4 Indian SMEs, and developed



39 new ranges of JDPs for the European market. In addition, in India four local designers provided mentoring to 28 SMEs to improve their design capacity and quality.

## **Addressing consumers**

To achieve sustainability on the demand and supply sides, Eco-Jute established a Business Facilitation Unit (BFU) to link SMEs with buyers and service providers. The BFU consultants regularly visited institutional buyers, showed samples, followed up with buyers and SMEs, and linked SMEs with buyers. The project also targeted individual consumers by organising the Consumer Awareness Campaign in Bangladesh that culminated in the three-day Jute Lifestyle Expo in May 2013 in Dhaka. Thirty supported SMEs brought 830 newly developed JDPs to the well-attended exhibition. As part of this awareness campaign the project also organised a rally, a poster competition and a case study competition. The campaign generated great enthusiasm among the general public for jute products and it was widely covered by major electronic as well as print media. This interest materialised in 1,200 immediate new orders for





jute products. As a next step, the BFU helped link nine SMEs with the design consultant to promote further innovation, also two SMEs with boutique houses to bring eco-jute products to the market. As it was difficult for SMEs to survive from only small product orders, the project targeted institutional buyers to attract large orders, as well as organising "Buyer-Seller Meets" to further link the SMEs with potential buyers. In just eight months between May 2013 and January 2014, the BFU helped generate over Tk.2.5 million (EUR 23,810) sales of JDPs.

In India, the BFU is a virtual entity and there is high demand for jute bags at the local markets, so there the project emphasised the participation of SMEs in fairs organised in different parts of the country. The project team also collaborated with governmental institutes and linked them with SMEs so that SMEs could benefit from all of the available facilities. In India the project also organised Buyer-Seller Meets. Combining all these efforts under the Eco-jute project, total sales of JDPs worth Tk.12.4 million in Bangladesh and Rs.10 million in India (a total of EUR 246,441) were achieved.

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# Creating the required policy environment

At the policy level, the project advocated change on six key issues:

- Ensuring availability of quality jute seeds;
- Expansion of Jute Diversified
  Products by ensuring availability
  of raw materials;
- Ensuring a fair price for jute;
- Commercialisation of innovative products of Bangladesh Jute Research Institute;
- BMRE (Balancing, Modernisation, Rehabilitation & Expansion) of conventional jute mills; and
- Re-excavation of canals to solve the water crisis for ensuring the quality of jute.

The project prepared a Policy Position Paper and submitted it to the relevant ministry. To bring their cause to a wider public, the project also engaged media by writing articles about their activities. Through the synchronised efforts, the project stimulated significant developments as the government implemented the Mandatory Packaging Act, making use of jute bags obligatory for food

grains, and the Bangladesh Bank issued a Circular to provide easy loans for balancing, modernisation, rehabilitation and expansion (BMRE) of state-owned jute mills

It was the objective of the Eco-Jute project to promote economic prosperity and poverty reduction in Bangladesh and West Bengal, by advancing sustainable consumption and production practice. As a result, during the project period, the SMEs achieved a 21.5% increase in sales revenue, indirectly improving the livelihood of jute workers. As the scope of the project did not allow them to measure the income increase of the workers, it is hard to measure clearly the effect of the project on poverty reduction. However, based on the increase in sales, it can be assumed that SMEs can either employ more workers, thus creating more green jobs, or their existing workers can work full time, also resulting in an income increase, which has a positive impact on reducing poverty in the countries.

## Challenges

We can definitely learn not only from what has been achieved, but also from the challenges overcome. The project

As a result, during the project period, the SMEs achieved a 21.5% increase in sales revenue, indirectly improving the livelihood of jute workers.

faced a number of challenges, including the lack of resilience of SMEs due to their small size and limited capacity, making it difficult for them to participate in project activities consistently. Furthermore, the political uncertainty in Bangladesh also made it difficult to organise more interventions to build people's capacity and increase sales and public awareness of eco-friendly jute. The project learned that if interventions could be organised to suit SMEs' needs and convenience, they tended to respond well. The SMEs appreciated the mentoring that helped them to improve their production, and were keen on Buyer-Seller Meets.

Despite these challenges, the Eco-Jute project teams in India and Bangladesh did well to achieve a sizeable impact on the jute sector, where the participating SMEs and BFU continue to promote jute diversified products.

## Ismat Jahan

Ismat Jahan is the Project Manager of the SWITCH-Asia Eco-Jute Project. She is part of the Traidcraft Bangladesh Country Office, where since January 2015 she also acts as an advisor to the EqualiTea Project supporting Sustainable Livelihoods for Small Tea Growers.

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# Supporting green growth and poverty reduction in Asia

By Deborah Lilienfeld Aragão

sia is home to several charismatic and important endemic species such as the Asian tiger and the orangutan. Additionally, Asia harbours several different eco-systems that provide important eco-system services to growing economies. Some ecosystems have been legally designated as protected areas while other areas do not have a sustainable sourcing management plan and continue to be under threat from unsustainable economic growth. It is estimated that 350 million of the world's poorest

people depend almost entirely for their subsistence and survival on forests. A further 1 billion poor people – about 20% of the world's population – depend on remnant woodlands, on homestead tree gardens, and on agro-forestry systems for their essential fuel wood, food and fodder needs. A significant portion of this population resides in Asia. Thus, there is a pressing need to combine poverty alleviation approaches with environmentally sustainable growth strategies.

**Buyer-Seller Meet** 

## Fauna & Flora International

Fauna & Flora International is a UK charity, whose mission is to conserve threatened species and ecosystems worldwide, choosing solutions that are sustainable, based on sound science and which take account of human needs. FFI is currently implementing



projects in over 40 countries, and has a large presence in the Asia-Pacific with active projects in Indonesia, Laos, Cambodia, Myanmar, Philippines, Vietnam, China and Australia.









Oryx Impact Investments (OII), a fund started by Fauna & Flora International, has been created to support small and medium enterprises that have a positive impact on the environment, while also supporting communities that depend on forests or marine ecosystems.

Oryx Impact Investments is providing short-term and long-term debt between EUR 18,000 and 450,000 to SMEs that can demonstrate direct impacts for biodiversity conservation.

## Deborah Lilienfeld Aragão

Deborah Aragão is the Investment Manager for Oryx Impact Investments at Fauna & Flora International. She has over ten years of impact investment experience and has previously worked at Incofin Investment Management, TechnoServe Inc, the Inter-American Development Bank and Conservation International.

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## A blended financial approach

While providing debt investments is the fund's focus, the investment model includes the provision of targeted business development services to startups and small enterprises to enable these enterprises to grow and continue providing environmental and economic impacts.

## Impact first

Oryx Impact Investments is an impact-first investor, valuing biodiversity and social impact ahead of commercial financial returns. OII seeks to finance SMEs that provide a range of positive conservation and social impacts alongside financial return. Impact targets can include:

- Demonstration of a positive speciesor habitat-based conservation impact;
- Mitigation of a negative biodiversity impact; • Strengthen or support sustainable
- management and use of areas of high conservation value;

- Provide sustainable livelihoods opportunities or other wellbeing benefits.
- While Oryx Impact Investments is an impact-first fund, financial viability of each investment is still critical.

## **Criteria for investment**

OII is receiving applications for financing from small and medium enterprises that fit the following criteria:

- Are legally registered entities;
- Demonstrate alignment with Oryx Impact Investments' desired impacts;
- Have a current business plan with financial projections;
- Demonstrate the ability to be financially sustainable;
- Are open to receiving technical support where it is deemed necessary and be welcoming of a 'handson' relationship with Oryx Impact Investments.

OII is currently investing in Indonesia and plans to expand within the Asia region within the next two years.

# **Investing in SMEs** for green growth

A conversation with James Bui, Lotus Impact managing director

By Sandra Khananusit and Melinda Donnelly (Asia LEDS Partnership Secretariat)

The SWITCH-Asia Programme and the Asia Low Emission Development Strategies (LEDS) Partnership are working towards the same objectives of accelerating the transition towards green growth, and reducing greenhouse gas emissions through sustainable consumption and production patterns. The two programmes also cooperated in 2014 for the Hanoi Climate Finance Workshop, Vietnam and the Asia LEDS Forum in Yogyakarta, Indonesia.

Green growth strategies aim to further economic growth while addressing climate change, environmental concerns and societal benefits. Investments in green growth strategies can result in environmental gains, job creation and enhanced economic competitiveness. In order to implement these strategies, investment is needed from both the private and public sectors. Lotus Impact, an "impact investment" firm, sits down with the Asia Low Emission Development Strategies (LEDS) Partnership to discuss linkages between green growth and poverty reduction, common barriers in investment mobilisation and tips for success.

## What is your company's mission with respect to driving green growth and achieving related social benefits?

Lotus Impact looks to partner with private enterprises in Southeast Asia to invest in projects that are not only financially sound, but address social and environmental issues at their core. There is a vast array of micro and small and medium-sized enterprises in the region looking for capital. As such, we've chosen to work exclusively with SMEs to develop solutions that generate sustainable income and employment for local populations, while meeting our multiple-benefits goals.

## With respect to addressing environmental concerns, are there priority sectors in which you work to promote low-emission development?

Early on, we looked at the array of topics that we could work in, types of investments we could make and potential impacts that those investments could

have. We decided to prioritise energy efficiency, clean water and sustainable agriculture, as there are significant opportunities in these areas. For energy efficiency, our primary motivators were the significant number of low-hanging fruit, good cost-recovery for SMEs, and projects that could serve as scalable models for greater investment and impact. For agriculture and clean water, we identified economic opportunities and impact, quick-win measures that were scalable and linkages with energy efficiency gains.

## What are the top factors that your company assesses to determine whether to invest in a partner enterprise or project? First, we assess whether the prospective partner's work fits within our priority sectors – energy efficiency, clean water and sustainable agriculture. Second, we perform an initial screening of the company's business and financial readiness

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to absorb investment.

If the company progresses past these initial assessments, we sign a non-disclosure agreement with the partner in order to "look under the bonnet" and assess their capabilities in more detail. At this stage, factors we review include:

- Financial, operational and management aspects. Are there company controls in place such as a business plan, accounting processes and reporting protocols? Do they have financial statements? Do they conduct audits?
- Do they have a proven track record of responsibility and success in various dimensions, including social and environmental impact?
- Is there potential to grow?
- How "investor ready" can they be in a short space of time?
- If they are not yet "investor ready," do they have the appetite to work with Lotus Impact to become ready?

## Lotus is receptive to referrals to any promising enterprises that are looking to scale and increase their impact while promoting green growth.

We have learned that you cannot underestimate the power of an entrepreneur. Leadership and the drive of an individual or team running an SME are important factors that we consider in addition to the above criteria.

*Can you share an example of a partner* and project that your company has invested in? Specifically, how did the investment result in green growth benefits and how did it positively impact the local community, especially the poor? A particularly successful partnership has resulted from Lotus Impact's work with a Thai-owned company in the agriculture sector. The company purchases organic rice from low-income farmers and then processes and sells to international companies. The company

was well-established, with a positive 25-year business track record and functioning business systems. Lotus Impact identified this company as a potential partner with which to explore business development supply chain activities to create a higher product margin, develop company value and create jobs for the community. Following the screening process explained previously, Lotus decided to invest to secure rice paddies for farmers during the first year of partnership, and in purchasing production equipment required to produce new downstream rice-based products in the second year. We are continuously exploring new product groups, such as rice powder and noodles, to expand the company's existing organic farming business.

As a result of the loan given to the company, they will benefit from increased sales of a new premium product group - one with low to zero waste from production, low fuel cost (compared to other products) and increased energy savings. Primary buyers of the product include leading European and American organic food companies. The community will benefit from new jobs and increased income generation. The company will pre-purchase the rice from local farmers with a 10% premium paid over market price, and in addition to community-specific benefits, the process has a high replication potential to be applied regionally across Southeast Asia. This investment is just one example of the flexible financing approach that Lotus takes to support sustainable SME growth.

## Is there a business model that your company follows or other good practice that you can share?

general process described above is our



We do not have a set "model," but the typical approach. There is a common



Lotus Impact is a member of the Asia LEDS Partnership Steering Committee.

To learn more about Lotus Impact, visit their website at www.lotusimpact.com.

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myth that SMEs are not ready for capital investments. This may be partly true, but you also must ask, "Are investors ready to invest in Asian SMEs?" These are SMEs with features unique and attributable to their presence in Asia. For example, investors need to be adaptable and update their approach to prioritise cultural sensitivity, listen actively to potential partners and practise equity upfront in all aspects to build trust towards a lasting, successful relationship.

## How can investments with green growth and poverty reduction benefits be mobilised? Who should play a role in this process to ensure success?

Local fund managers and investors must be engaged in both investment identification and mobilisation. To identify investment opportunities, local fund managers must be handson, active in searching for potential investments and prepared to strategise new solutions for negotiating partnerships with companies. There is no such thing as "lazy financing." Fund managers must focus on creating business value for the partnering company, with the added business value exceeding the amount of capital investment. Investors must be close enough to the market to see how projects can be implemented and scaled. The investor must understand the business process, and be prepared with an equal amount of patience for the investment to be mobilised and tenacity to spur the investment progress and implementation.

As part of this engaged financing, Lotus actively incorporates impact as a key measure of success. During the pre-investment process, we identify and set social and environmental impact targets for the company to achieve. These targets are actively tracked post-investment to ensure both financial and social/environmental returns are achieved. In line with global impact investors, Lotus primarily uses the Im-

## Interested in this topic?

The Asia LEDS Partnership will organise a regional workshop in Ho Chi Minh City, *Vietnam in October 2015 to bring together key stakeholders from responsible* government agencies to interact with the private sector, development finance, and non-governmental organisations, to share experiences about effective ways to accelerate private investment in green growth and low-emission development in agriculture.

*The workshop will also support the development of public-private collaborative* actions to mobilise investment along with peer knowledge sharing.

For more information, visit http://asialeds.org/events.

pact Reporting and Investment Standards (IRIS) indicators developed by the Global Impact Investing Network (GIIN) and tailors additional company-specific indicators, as necessary.

Increased coordination between the private sector and the government could benefit the investment mobilisation process greatly. Many times, we find that government policy makers and investors don't speak the same language. Direct exchange and deeper conversation between these groups could result in policy design that is more responsive to investor motivations, more simplified and efficient investment opportunities, and a clearer "invitation" to private investment in areas of need. We are cognisant of our role in catalysing this conversation and have been active in bringing key parties together for discussion. Last December, Lotus, alongside the Center for Social Innovation and Promotion (CSIP), arguably the leading organisation to promote social enterprise policy development in Vietnam, organised the country's second Social Investment Forum. The forum stimulated discussion among policy holders, investors, enterprises and other ecosystem players. Also crucial is the private and public sector being looked to equally for the unlocking of

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capital. If government agencies take the first step in investing (such as by providing seed funding), this sends a much stronger signal to investors that the government is committed to addressing climate change and green growth and helps investors to recognise opportunities that align with public policy priorities.

## How can international development cooperation programmes like SWITCH-Asia and the Asia LEDS Partnership cooperate more effectively with impact investment companies like Lotus Impact to achieve joint objectives of green growth, climate protection and poverty reduction?

Lotus is continuously seeking opportunities for investment in green growth, climate protection and poverty reduction as they align with our sector focuses. International development cooperation across any axis contributes to further sustainable growth. Lotus is receptive to referrals to any promising enterprises that are looking to scale and increase their impact while promoting green growth.

## SWITCH-Asia case study

# **Sustainability and preservation** of local handicrafts

In the Philippines, the SWITCH-Asia project "Sustainable Hand-woven Eco-textiles" contributes to the preservation of traditional handicrafts by promoting sustainable textiles.

By Rex Edward A Dela Peña (NTFP-EP Philippines)

he use of synthetic dyes currently dominates the mainstream textile market. However, efforts to revive and transmit the traditional skills of hand-woven textile creation, including the propagation, production and application of natural dyes, is one means of challenging unsustainable consumption and production practices. The EU-funded SWITCH-Asia project "Sustainable Hand-Woven EcoTextile" (SHWET) implemented by Hivos and its 3 local partners, Non-Timber Forest Products Exchange Programme (NTFP-EP), Association for Women in Small Business



Master Weaver Benita Balangtu dipping the cotton thread during the training conducted by Beng Camba of NTFP-EP Philippines.

Assistance (ASPPUK), and Indonesian Hand-woven Textile Association (CTI), in 20 provinces in Indonesia and the Philippines, focuses on introducing sustainable practice to all levels of the hand-woven textile value chain, from cultivation of plant-based dye sources to marketing.

## Ikat textiles

In the remote and mountainous Ifugao region of the Philippines, the SHWET project supports the female-dominated production of the traditional textile known as ikat. This generic name for hand-woven textiles refers to the knotting action of the weaving process, and is also used in Indonesia. The Ifugao tie-dyeing technique that gives the region's ikat its distinctive patterns has been practised by indigenous weavers for centuries alongside the rich local traditions of the Banaue Rice Terraces rice-culture. However, due to the complex and skilled process required to create ikat textiles, today only a handful of weavers use these generations-old weaving techniques and traditional backstrap looms. The remaining ikat Masters who are experts in the monthlong "binudbudan" or tie-dyeing process



The Rice Terraces of the Philippine Cordilleras were inscribed on the UNESCO World Heritage List in 1995, the firstever property to be included in the cultural landscape category of the World Heritage List. The Ifugao Rice *Terraces illustrate the remarkable* ability of human culture to adapt to new social and climate pressures as well as to implement and develop new ideas and technologies.



required to produce the famous Ifugao ikat blankets called "Kinuttiyan and Inladang" are gradually decreasing in numbers, and most are already elderly.

Currently there are only 28 female *ikat* weavers in the Ifugao Province Cordillera Autonomous Region of the Philippines who use natural tie-dyeing. The women come from the small municipalities of Banaue and Hingyon, and are members of the Lugo Amganad Banaue Tie Dye Indigenous Women's Association (LABTDWA). The association was formed to support and organise weavers, including improving their incomes by connecting them to markets for their traditional handwoven ikat textiles.

## **Project activities**

SWITCH-Asia project partners, NTFP-EP and LABTDWA, have provided support to Ifugao ikat producers since 2013. Activities include orientation workshops on international textile standards for quality assurance, Quality Assurance Production Assessment, resource mapping to identify locally available sources of natural dyes, design clinics to develop new product designs, fair pricing, and support for participation in domestic and international trade fairs. Resource mapping was followed by a training workshop on natural dye extraction and application conducted by NTFP-EP Philippines in August 2014. This resulted in the creation of a number of new and vibrant colours using natural dye sources, such as cogon grass, mayana leaves, hawili leaves etc. These dyes were subsequently used to produce new ikat samples. To support further development of Ifugao ikat textiles, the new natural dyes that had been identified were used as a colour medium for contemporary ikat designs provided by a New York based Filipina designer who is assisting in the SHWET project. A series of product design and development workshops for the weavers resulted in the creation of value-added

The "Kinuttiyan" or cotton blanket, is a rare ethno-graphic textile collection of the Anthropology Division of the National Museum of the Philippines. There are only a few existing kinuttiyan documented and they are found in the municipalities of Banaue, Hingyon and Kiangan in Ifugao Province. They are made and formed from commercialised cotton threads, using the "tie and dve method from natural dves" (ikat technique). Indigenous plants, locally called hawili (Elaecarpus pendulus) and bulu-bulu (Acalypha stipulacea klotz), are mixed and boiled until the desired black colour is achieved. This is also done with other indigenous legumes for the red and yellow colours which are included for aesthetic purposes.

products made from the ikat textiles. including placemats, runners, shawls and blankets. Some of the products were included during the Manila FAME / CITEM<sup>1</sup> International Trade Show in October 2014, and some were showcased during the National Hinabi Trade Fair in Manila.

## **Trade fair participation**

The participation of LABTDWA in the Manila FAME / CITEM and Hinabi trade fairs generated additional sales amounting to PHP 17,350.00 (EUR 347.5). The annual sales from 2013 were PHP 281,000 (EUR 5,629) and increased by 27.78% in 2014 to PHP 359,089 (EUR 7,194). The trade fairs also provided



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further exposure to consumers and the opportunity to promote the Ifugao ikat textiles to new market segments. LABTDWA took the opportunity to link to CITEM and the Department of Trade and Industries, and become a newly sworn trader member of PHILEXPORT<sup>2</sup>. As a member of PHILEXPORT, LABTDWA has access to export trading standards, regulations and other requirements such as policies, trade, market developments and trends through seminars, workshops and information materials. As part of its export advocacy, development and promotion programmes and services, members are assisted by connecting them to international buyers looking for products and suppliers from Philippines.

Natural Tie-Dyeing is an attempt to revive the Ifugao ikat weaving heritage in its living tradition, thereby ensuring its transmission to the next generation, while embracing the sustainable consumption and production of ikat textiles.

Rex Edward A Dela Peña, Mindoro and Northern Luzon NTFP-EP Philippines

## **Integrating SCP standards**

The SWITCH-Asia project has trained Ifugao producers in the sustainable consumption and production (SCP) standards for Handwoven Ecotextiles (HWET), which are now gradually being integrated into the production of new Ifugao ikat products. The initial implementation of these SCP standards was a challenge for LABTDWA as they had to understand the importance of sustaining and managing the resource base. A clean production environment coupled with safe working conditions and fair labour are also elements to

be adhered to, similarly concern for consumer welfare. The protection and promotion of weavers' cultural identity was also accorded much significance. The following are components of the SCP standards:

- Sustainable Resource Management (SRM);
- Clean Production (CP);
- Fair Labour Practices and Safe Working Conditions (FL/SWC);
- Cultural Protection and Promotion (CP&P);
- Consumer Safety (CS);
- SCP-Eco-Label (SCPL).

To complement capacity-building work at the local level with individual producers, SWITCH-Asia's implementing partner NTFP-EP is currently working with national textile groups, academics and the private sector to develop national guidelines for the creation of sustainable, high-quality traditional textiles. NTFP-EP has also conducted meetings and will organise a national conference in October 2015, inviting project partners to discuss issues and concerns about SCP and to press forward the advocacy on the use of HWET.

## **Policy roadmap**

To further effect changes on policies related to the hand weaving industry, NTFP-EP Philippines is developing the Philippine roadmap for the sector. The study is aimed at providing systematically consolidated information that will aid in planning strategic interventions for the HWET sector.

Producers in Ifugao are currently providing input to the development of quality assurance standards for the natural dye tie-dyeing processes used in the region. Local best practice and challenges have been documented, and will be studied and used in selecting the criteria that will form the basis of the quality assurance system for Ifugao ikat textiles. A critical next step will be the socialisation of the standards into the community, and support for adoption. It is envisaged that, by the project's conclusion, the SCP standards will provide Ifugao producers with clear vision and guidelines on how ikat textile production micro-enterprises can promote environmentally friendly, culturally sensitive, and socially responsible production while optimising the quality.

## **Entering international** markets

NTFP-EP Philippines has a marketing arm (Custom Made Crafts Center) which links the weavers to the national and global market. CMCC participates in local and international exhibitions to promote the traditional textiles produced by the partner – weavers of NTFP-EP Philippines. Since 2014, CMCC has participated in the International Folk Art Market in Santa Fe. New Mexico. USA. CMCC also works with Philippine commercial attachés around the world, and has been able to enter the Japanese market successfully and is currently undertaking market research before selling in Europe. Aside from CMCC, NTFP-EP Philippines also established marketing satellites in the provinces to develop the local market, focused on corporate and conference gifts, and home and office accessories. The project supports female entrepreneurs via capacity building that enables them to implement SCP practice while meeting the quality standards required by local and international markets. The project also strengthens linkages in the supply chain from the producers of natural dyes to the weavers of tropical eco-fibres, as well as providing access to green

finance, and establishing shops and distribution centres for SCP HWET textiles.

## **Economic, environmental** and social impacts

anism for SCP practice in the handwoven textile weaving communities. The establishment and adoption of quality assurance systems, with environmental and social standards for dyes, eco-fibres and textile production, ensures the involvement and collaboration of commercial organisations, research and financial institutions and

Today, there are only 28 Ifugao ikat artisan weaver members of LABTDWA engaged in traditional ikat weaving using natural dye sources. Ikat is a dyeing technique used to pattern textiles. The majority of the remaining ikat Masters, who are regarded as experts in the month-long "binudbudan" or tie-dyeing process required to produce the famous Ifugao ikat blankets called "Kinuttiyan and Inladdang", are getting older every year while others have passed away taking with them the centuries-old Ifugao ikat weaving tradition. We are conserving and promoting this rich historical and cultural heritage by encouraging the transfer of the endangered Ifugao ikat weaving tradition to the younger generation, while developing the artistic expression of the weaving communities' enterprise skills that is also threatened with extinction.

Lily Beyer Luglug, Treasurer, Lugo Amganad Banaue Tie Dye Indigenous Women's Association (LABTDWA)



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The project includes a replication mech-

government departments. Through the implementation of SCP activities, awareness raising of eco-textiles has also promoted a shift towards sustainability. Eco-textile weaving communities are continuously being supported by linking them with institutions, market channels, retailers, designers, research institutions, government bodies and knowledge centres to support production and marketing and to create an enabling policy environment.

In the process, the activities encourage, motivate and stimulate entrepreneurship among the textile weaving communities in the Philippines.

## SWITCH-Asia case study

# Access to finance brings new rays of hope to Indian farmers through the revival of traditional farming and livelihoods

Towards the end of 2014, the Rural Organisation for Social Education (ROSE) joined with the Friends of Women's World Banking (FWWB), India under the EU-funded SWITCH-Asia project "Agribusiness access to finance", to enable the farming community gain access to necessary credit facilities to carry out their agricultural operations.

By ROSE & FWWB



udukottai is one among the 33 districts of Tamil Nadu in India, a drought-prone area where 90% of the cultivable land depends on monsoon rain. Earlier the average rainfall was around 900 mm per annum; but today, actual rainfall has dropped to less than 600 mm. Dryland farming is widely practised as there are no perennial rivers. However, some farmers make use of ground water through tube wells or open wells. Paddy is the primary crop in the district, and other wetland crops include sugar cane and plantain. These crops require a huge quantity of water. The major of dryland crops are groundnuts, gingili and pulses. Traditional farmers used to cultivate millets which became rare in the last forty years for





reasons including longer cultivation

time, comparatively lower productivity, lack of market and accurate selling price.

Over the last decade, ground water sources became drastically depleted

coupled with the monsoon failing. More than 60% of farmers gave up farming

and migrated to neighbouring towns for casual employment. The remaining farmers struggle to cultivate their land given the multiple increase in the cost of inputs. Chemical inputs, such as

fertilizers, pesticides, and herbicides -

all are detrimental to the health and life

of producers, consumers and the animal

tural-based livelihood, has also reduced

considerably. Farmers have become

population. Cattle rearing, which was once an allied but important agricul-

> highly indebted and are often unable to pay back their loans with interest, so have started selling off their marginal lands at throw-away prices and are shifting to daily wage activities in different sectors like construction, marketing, loading and unloading, stone quarries, textiles, etc. They are migrating for employment, which affects the education of their children, and their cultural identity, roots, socialisation processes, and traditions.

To prevent farmers' migration and alienation from their farmland, the Rural Organisation for Social Education (ROSE) organised the small and marginal farmers into an organic farmers' producer company limited at the district level, namely the Pudukottai Organic Farmers Producer Company Limited. To revive dryland farming and to restore traditional farming practices that are farmer friendly, simple, affordable and sustainable in all aspects, ROSE started to promote traditional paddy varieties and millets in place of water-intensive cash crops and wetland crops. However, farmers lacked working capital since a major portion of their income went to the middle traders who advanced the money for cultivation. Farmers took

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loans from moneylenders at exorbitant rates of interest (120 to 180% p.a.) while the price of the farm produce was fixed by the middle traders and moneylenders.

Towards the end of 2014, ROSE joined with Friends of Women's World Banking (FWWB) India under the EU-funded SWITCH-Asia project "Agribusiness access to finance" to enable the farming community to have access to the necessary credit facility in order to undertake their agricultural operations.

The objective of the project "Agri*business access to finance*" is to support MSMEs adopting sustainable technologies using financial incentives and building linkages with retail markets. The project provides access to finance, technical and marketing support to the MSMEs required for scaling up their operations. Pudukottai promotes sustainable and green agriculture practice, hence they were considered under the project to get access to finance along with technical and marketing support.

The project strategy is to provide financial, technical and marketing support to the producer company so that they can scale up their operations and cater to a larger farmer base in the region. Technical support is provided

to the producer company to improve planning, and providing new sustainable technologies and overall strengthening of operations. Marketing support ensures that the producer company is linked with buyers of the agri-produce as well as to develop the market for products like millets. The project envisages arranging higher capital requirements with scaling up of operations of the producer company. With an increase in operations, the producer company will be able to cater to a larger farmer base in the region.

An initial capital of INR 1,200,000 (EUR 16,800) was disbursed as loans by the FWWB to the Pudukottai Producer Company. The prime objectives of this partnership were to protect the farmers from the private money lenders, to make farming a profitable business and to supply food not tainted by agrochemicals to consumers.

I produced 1,256 kilogrammes of Kodo millet, a dryland crop. I sold it to the Producer Company which paid me INR 20 per kg for a total of INR 25,120 (EUR 356). Whereas, had I sold it to other companies, I would have just received INR 22,608 (EUR 320) and if sold to the middle traders, it would have fetched me only INR 20,096 (EUR 288). Through direct sales to our company, I have gained an extra income of INR 5,024 (EUR 71) with which I plan to support the education of my daughter. With the advance from the Producer Company, I avoided the moneylenders who would have charged me with at least 60% interest on the capital. When I recollect my family's financial crisis last year, the middle traders and moneylenders demanded that we sell the small piece of land that we inherited from our ancestors! Thank goodness that we did not yield to their pressures. ROSE showed us the right path and FWWB supported us with the necessary finance so that we were able to withstand the crisis and I can proudly say that I shall not think of selling off any land we own. I can feed my children with nutritious food. I can live with dignity. I have developed greater self confidence and my husband and neighbours pay me due respect. I thank ROSE and FWWB for supporting and guiding our Producer Company.

Vannakili, a female farmer from Vadaseripatti located 15 kms from Pudukottai District





The launch of the Pudukottai Organic Farmers Producer Company Limited has already brought about notable changes in the lives of farmers within a short span of four months, demonstrating its innovation. There are currently 1,023 farmers of whom 65% are female. Each member has a minimum share of INR 1 000 (EUR 14). The farmers sell their agricultural products to the Producer Company, which offers them competitive prices. The Producer Company buys produce, such as traditional paddy varieties, minor millets like Kodo millet, Proso millet, Pearl millet, etc. from the marginal farmers who cultivate them using natural farming practice without applying any chemicals. The farmers receive an extra INR 2 (EUR 0.03) per kilogramme of millet and paddy. The products are cleaned, destined, de-husked and processed for value addition by the female farmers at the production unit owned by the company. The Producer Company has procured millets and

paddy varieties which are stored in the Government's Go-down (Storage Facility) that belongs to the Agricultural Business Development Department at Pudukottai. To demonstrate its appreciation, the Department of Agriculture has donated a millet processing machine worth INR 270,000 (about 3,700 EUR) that has already been installed at the Producer Company.

In addition, the district administration, in coordination with the Department of Agriculture, will allocate two acres of land to the Producer Company free of cost. Within a short span of time, the Pudukottai Organic Farmers Producer Company Limited has won the hearts

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of not only the farmers but also of the government officials who make regular visits and encourage the initiative.

The Producer Company started its operations on a small scale, serving a limited number of farmers. As the scale of operations increases, the producer company will be able to serve the needs of the farmers better and to a larger number of farmers. As next steps, the producer company will be provided with technical support for strengthening operations, adopting suitable green technologies and processes, access to higher working capital for scaling up operations and marketing support for the agri-produce of the producer company.

## SWITCH-Asia case study

# Pakistani SMEs save money and increase efficiency by using better ginning practices

Performance evaluation carried out by the SWITCH-Asia Cotton Production (SPRING) project team in Pakistan identified significant improvements through the optimisation of resource use for productivity, quality, working conditions and occupational health and safety (OHS). A few of these improvements, garnered through post implementation technical audits of 45 ginning factories, are mentioned here as examples.



### By Masood Akhtar

he SWITCH-Asia Cotton Production (SPRING) project is an example of how technical improvements can contribute to both resource efficiency and improved working conditions of employees in the cotton ginning industry. Since its inception in 2012, this SWITCH-Asia project in Pakistan has been providing technically viable and economically feasible low to medium cost solutions to promote environment and resource efficiency, economic prosperity and im-

proved working conditions by encouraging a switch to more environmentally sustainable practices in the country's ginning industry which is one of Pakistan's major sources of employment and exports.

Here are some examples of best practices that have been successfully applied by the cotton ginning SMEs and of their positive impact on resource efficiency, energy savings, OHS and industrial competitiveness.



- Better ginning practices (BGPs) related to saw replacement and speed optimisation have resulted in a minimum of 50 gm/40 kg of processed cotton, leading to approximately 100 extra bales (at a value of PKR. 2.5 million) (EUR 22) with the same material input in a standard cotton ginning season.
- Fibre quality tests in the post-BGPs implementation period showed a reduction in SFI (short fibre index) and an increase in fibre length resulting in more buyers being interested offering better prices for good quality cotton.
- The replacement of a 50 hp delivery fan motor, substituting two delivery fans with a more-efficient single fan, and a motor of 40 hp resulted in an average reduction of approx. 25 000 kWh/season with a saving of Rs.517 240 per season for an average ginning SME.
- Adoption of recommended BGPs, such as replacement and size optimisation of motors, improvement and optimisation of machine start-up procedures, improvement in power factor improvement (PFI) plants, installation of automatic voltage stabilisers and use of power analysers, etc. for energy conservation resulted in overall savings of 10-15% in electricity alone.



- Data gathered and analysed showed a reduction of 1.5 to 2 units of electricity/bale produced after adopting recommended practice and technical changes.
- It was observed that velocity of air at the suction pipe for seed cotton feeding was higher than the recommended value. Following an advised reduction in the size of the fan, electricity consumption decreased, and the complete suction fan rotors and casing were replaced. This intervention optimised the pneumatic load with resultant electricity consumption savings. Adoption of this BGP brings savings of approx. 15 000 kWh/season, worth PKR 300,000 (EUR 2,600), to an average sized SME. This BGP requires a modest investment of PKR 60,000 (EUR 535), with a rapid payback period of only 30 days.





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- Installation of filter fans reduces dust levels at ginning SMEs.
- Installation of fences around moving machinery parts, guard rails on stairs, concealment of electrical wires, etc. have reduced the number of workplace-related health risks and injuries. The reduction of airborne particulate emissions helps reducing occupational health disorders of cotton ginning workers.
- It was recommended to participating ginning SMEs to install conveyors to carry the overflow seed cotton after the last gin stand and to feed it back to the gin stands. Previously, this recycling was undertaken by suction fan and duct system. The investment required was around PKR 100,000 (EUR 890) (steel frame, fibre belt, drive motor and other control system), and proved to be both very effective and energy efficient, showing an energy saving of 31,451 KWh/ season with a monetary value of PKR 630,000 (EUR 5,600), and a very short payback period of 23 days.

By the end of the project in December 2015, the SPRING project aims at having at least 500 cotton ginning SMEs in the country recognise the benefits of sustainable cotton production and consumption, with 40% of these committing to more sustainable production practices in line with agreed BGP guidelines and supported by the procurement practices of European retailers.

SWITCH-Asia networking event

# Achieving sustainable livelihoods in Asia through sustainable consumption and production



## 4 – 6 November 2015

## The LaLiT Hotel • New Delhi • India

This networking event will be attended by about 200 participants, who will be representing project beneficiaries of the SWITCH-Asia Programme, representatives from the European Union, Asian policy makers, civil society organisation and selected topic specific experts.

For more information please go to: www.switch-asia.eu/events