Sri Lanka Banks' Association
Sustainable Banking Initiative

Case Study

Banking on Opportunities

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Introduction

Source: Pixabay

"The financial system has enormous transformative power, and has the potential to serve as an engine for the global economy's transition to sustainable development," ***UN Environment head Erik Solheim***

"Sustainable growth must be the only growth option for the planet and will require sustainable financial systems that are inclusive, deep, and sound," ***Hartwig Schafer, World Bank Vice President for Global Themes.***

With adoption of two major international policies namely the Sustainable Development Goals (SDGs) and the Paris Agreement on Climate Change private finance needs to be mobilised and directed towards realising critical sustainability solutions. If we are to get close to achieving the outcomes envisioned under these two policies trillions of dollars will need to be deployed much of which will have to come from the world's financial and capital markets.

To build a greener, cleaner more inclusive global economy we need a more sustainable financial system and some transformative change to the one that dominates the world today. Although we are still far from creating a global financial system that is fit for purpose, there is growing momentum in this area and in November 2017 the World Bank released a report the Roadmap for a Sustainable Financial System. It proposes an integrated approach for all financial sector stakeholders to bring policy cohesiveness across ministries, central banks, financial regulators; and private financial sector participants to focus efforts.

In the meantime, the market continues to offer up new and exciting opportunities to those prepared to seek them out. Now is the time to start viewing market opportunities through a set of different lenses.

The cases presented in this document reflect some of the opportunities that Sri Lanka already has to offer, and which banks are already participating in. Given the numerous sustainability challenges that Sri Lanka faces, in theory, there should be no shortage of opportunities, if the enabling market can be created. Up and down the supply chain of waste management, clean production technologies, wind, and PV power generation, greening of modes of transport, greener building technologies.

The case is based on facts, but names have been changed for reasons of confidentiality.

Waste to gold dust

Photo by Alvin Engler on Unsplash

In the following two examples, entrepreneurs have identified the opportunity to turn waste into a product with value, one fish waste into an animal feed and the second various sources of agricultural and fishery waste in compost biofertilizer.

Both processes meet a growing local demand either for a cheaper locally produced product in the case of the fish meal over an imported one or organic fertiliser as an alternative to less environmentally friendly and more expensive chemical fertilisers which government is no longer subsidising.

In both cases, the processes use fish and agricultural wastes which are typically dumped into the environment without prior treatment and are a major source of ground, surface water, and marine pollution and threat to human health.

Fish waste to fish meal

In this case a company established a factory to process fish waste removed from one of Sri Lanka's prominent fishery harbours located in the Northern Province. The factory processed the waste into fish meal which is used as animal feed. Most fish meal consumed in country is imported. The process also produces an organic fertiliser that can be used for local cultivation. It has generated additional income for fishing communities who sell the fish waste to the factory as well as employment opportunities.

The process generates air emissions which can be an odour nuisance if not treated and wastes such as fish slurry. The neighbouring community protested and the Central Environment Authority (CEA) ordered the factory to cease production until a proper odour control system was installed. This triggered the client to install a total pollution control system at a total cost of LKR 40 million. The bank was approached for a five-year term loan of LKR 20 million. The total pollution control system has the additional benefit of extracting fish oil from liquid waste. This generates another revenue stream for the operation reducing the payback period. In addition, the solids extracted from the effluent and the treated water can be recycled back into the process.

Photo by Gabriel Jimenez on Unsplash

The bank's branch officers identified other actions to enhance the sustainability of the operation after visiting site with the bank's ESMS officer. They included:

1. Establishing a green belt using indigenous trees around the factory premises;
2. To use the invasive tree *‚Prosopis julifolia'* as a source of fuel wood for the boilers which is being uprooted from conservation areas by the Forest Department and Department of Wildlife Conservation and has a higher calorific value; and
3. Install a rain water harvesting system to feed excess rainwater back into the ground.

These actions were implemented adding value to the operation. Unfortunately, due to an underlying ethnic conflict the client had to close the operation. However, because of his investments he found a willing buyer who was operating a similar operation in another province but without pollution control systems and serious odour problems. They purchased all the machinery which allowed them to increase their production capacity, clean up the operation and generate new products and new revenue streams.

Whilst a difficult social issue resulted in the closure of the factory, the investments in cleaner process technologies meant the client was able to sell the plant without incurring financial losses and the bank was able to transfer the loan facility to the new owner as well as attract a new client.

Fish and agriculture waste to bio-fertiliser

There are entrepreneurs out developing new products to address challenges. This is one such example. Would you work with this entrepreneur to make their business a success? What can you bring to the table as a bank?

Sri Lanka faces significant environmental health challenges arising from poor waste management and poor agrochemical (fertilisers, pesticides, herbicides) use practices. Concerns include:

1. Leachates from stock piles of agricultural waste such as vegetable matter, absolute refuse tea, tea sludge;

Source: Pixabay

2. Discharge of untreated dairy and fish slurry into rivers and the sea presenting an impact to human health, aquatic and marine life;

3. Health risks, groundwater and surface water pollutions, loss of organic matter in the soil and reduced water and nutrient holding capacity and loss of microbial life important for supporting plant growth and disease resistance associated with agrochemical use.

In response the government has curtailed dumping of absolute refuse tea and tea sludge, restrictions of the use of herbicides and launched campaigns to encourage more sustainable agricultural practices. In addition, there is a growing market for organic foods and subsequently an increasing demand for organic fertilisers and compost by farmers, particularly rice and vegetable farmers.

Bioproducts Enterprises, seeing an opportunity from the changing regulatory environment and consumer demand has spent three years conducting research and trialling microbial inoculants for rapid decomposition of wastes from instant tea manufacturers, vegetable markets, dairies, prawn, and fish processing operations to produce compost bio-fertilisers. The result are microbe-enriched compost products that introduce organic matter into the soil improving the soil structure, its biological activity and micro-biota which are important for better nutrient uptake, water retention and plant growth.

Based on successful trials of the products in partnership with a large tea estate the company is seeking finance to double production to 500 MT per month at their existing site and establish another site closer to raw materials suppliers and customers, with a production capacity of 750 – 1000 MT per month.

Going off grid

A boutique hotel decided to install solar photovoltaic panels to generate daily electricity needs. The power generating capacity of the set up is 60 kW. The hotel approached the bank for a five-year term loan of LKR 5 million. The operation was rated low E&S risk and no environmental licence was required for the solar power development. In addition, the hotel established

that their carbon foot print would be reduced by 28 tonnes of carbon dioxide equivalents/month and a new revenue stream realised through the sale of extra electricity to the Ceylon Electricity Board (CEB).

Since commissioning the solar power plant, the company has been able to cover its monthly instalments of approximately LKR 101,000 from the sale of electricity to CEB which generates a monthly income of LKR 121,000.

Wind energy

Despite Sri Lanka having great potential for wind power the first wind power project did not come online until 2010. Five banks participated in the financing of the project in a syndicated facility with a tenure of eight years.

Although a clean renewable energy source, the banks were aware of potential environmental and social risks including but not limited to land conflicts, occupational safety hazards, and impact to bird life. The conditions attached to the Central Environmental Authority (CEA) granting final approval became pre-disbursement conditions. The key concern of the CEA was the potential impact on bird life that the project proponent was required to submit a bird migration study before a decision on approval could be made.

The project has been operating successfully for seven years with minimal environmental impacts reported. On the upside the project generates 27GWh of renewable energy a year and led the way for other wind power projects. By December 2016 15 other wind power projects had come online with a total capacity of 128.5MW and with less controversy and less environmental and social impact than hydro power project

Source: Pixabay