Contract N° Asie / 2014 /351-934 SRI LANKA	SWITCH-Asia Sustainable Consumption and Production (SCP) National Policy

SPECIAL ASSIGNMENT REPORT

Financial Instruments for Sustainable Consumption & Production

SWITCH-Asia
Sustainable Consumption & Production
National Policy Support Component
Sri Lanka

10th of October 2017

Report Prepared by:

Dr Patrick Schroeder, International Expert

Mr. Lasintha Ferdinando, National Expert

Itinerary:

Colombo, Aug 2017 to Oct 2017

CONTENTS

Contents

1. ABBREVIATIONS

ADB	Asian Development Bank
AWDR	Average Weighted Deposit Rates
BOI	Board of Investment
CAR	Capital Adequacy Ratio
CBSL	Central Bank of Sri Lanka
CEA	Central Environment Authority
CP	Cleaner Production
DFCC	DFCC Bank PLC
DFI	Development Financial Institute
EC	European Commission
EE	Energy Efficiency
EIB	European Investment Bank
EIRR	Economic Internal Rate of Return
EPL	Environmental Protection License
ESG	Environment, Social and Governance
EU	European Union
EUD	Delegation of the European Union to Sri Lanka and Maldives
GIF	Green Investment Facility Vietnam
GIZ	German Federal Enterprise for International Cooperation
GP	Green Procurement
IFC	International Finance Corporation
IKI	International Climate Initiative
IRR	Internal Rate of Return

JICA	Japan International Cooperation Agency
JBIC	Japan Bank for International Cooperation
KFW	German government-owned development bank
LCB	Licensed Commercial Banks
LFC	Licensed Finance Companies
MFI	Micro Finance Institution
MIFA	Microfinance Initiative for Asia
MNC	Multi National Company
MoFP	Ministry of Finance & Planning
MoIC	Ministry of Industry & Commerce
MoMDE	Ministry of Mahaweli Development and Environment
MoPF	Ministry of Public Finance
NDB	NDB PLC
NBFI	Non-Banking Financial Institute
NDRC	National Development and Reform Commission (China)
NPL	Non-Performing Loans
NPSC	National Policy Support Component
NPV	Net Present Value
PBoC	Peoples Bank of China
PCI	Participatory Credit Institute
RE	Renewable Energy
RWA	Risk Weighted Assets
SBN	Sustainable Banking Network
SCP	Sustainable Consumption and Production
SMEs	Small & Medium Enterprises

SEBI	Securities and Exchange Board of India
SPP	Sustainable Public Procurement
VAT	Value Added Tax

EXECUTIVE SUMMARY

The report identifies the current state of green finance for Sustainable Consumption and Production (SCP) in Sri Lanka. It reviews international experiences from other Asian countries, which can serve as reference point for further development of green finance instruments and policies for Sri Lanka. The various approaches of SCP are becoming increasingly relevant for sustainable economic development. This is highlighted by the fact that SCP is included in the Sustainable Development Goals (SDGs) as individual stand-alone goal (SDG 12). Green finance for SMEs is an important aspect to transform existing unsustainable consumption and production patterns. Recommendations of this report are made in reference to achieving this transformation for the sectors of dairy, tea and rice processing.

In addition to the technical reports prepared by the experts, a stakeholder consultation workshop with 40 representatives from Sri Lanka's financial sector, government and SME industry sectors; tea, rice and dairy processing, was held in Colombo on 21 September 2017. The recommendations from this stakeholder consultation are included in this report.

The main findings of the technical reports are as follows:

Sri Lanka has promoted SCP and green financing activities through the initial funding stage by way of concessionary interest rates to the end user/borrower or subsidized interest rates and refinanced funds to the lenders. Successes in terms of disbursement of funds have been extremely satisfactory due to the fact no funding lines have been returned or utilized way before the timelines. However, the utilization of funds for the desired purpose and the post disbursement monitoring and evaluation has been weak. Although project closure reports may indicate statistics for what purpose, number of employment generated, efficiency anticipated, etc. is captured at the proposal level, and there is no indication whether these are really achieved.

SMEs in Sri Lanka often find it difficult to understand the benefits of SCP and do not have the expertise to evaluate the financial feasibility, suitability and acceptability of the project or the investment. In order to induce the SME sector to embrace the opportunities of green technologies and SCP management practices, both technical and financial support instruments are needed which link SCP to increasing competitiveness of SMEs.

The main findings of the review of international experiences shows that over the last three years, a number of Asian countries have developed national policies to advance green financing, including Bangladesh, China, India, Indonesia, Mongolia and Vietnam. The examples show political commitment and national level coordination mechanisms are key to a successful green finance strategy. In Asia, green bonds are emerging as a major financing instrument to promote low-carbon development and the green economy. Labelled green bonds are bonds of which the proceeds are used for green assets and projects and are labelled accordingly. SCP related projects related to resource efficiency of SMEs can also classify for green bonds.

On regional level in Asia, various networks, initiatives, trends and themes of green finance for SCP are being offered and promoted by various institutions in Asia. An emerging new theme are the circular economy which is, like SCP, based on life cycle thinking, which can also be relevant for Sri Lanka. These initiatives include capacity building programmes for green finance, financing of women entrepreneurs, and microfinance schemes.

The main recommendations of this report are as follows:

The report makes several immediate recommendations for the current Sri Lankan 2018 Budget plan. To kick-start green SME finance in Sri Lanka, the report recommends the following actions to be implemented in the coming year 2018:

* **Initiative compulsory green lending by Licensed Commercial Banks (LCBs) or Non-Banking Financial Institutes ((NBFIs) under the supervision of CBSL of between 5-10% of the banks' portfolio** and interest earned to be tax exempted (Corporate Tax) to PCIs on this portfolio.
* **Provide tax benefits to SME borrowers to procure high-tech machinery, energy efficient solutions such as capacitor banks, variable speed motors, automation of processes for higher output with minimum time and waste. This will encourage the private sector embracing green finance** and come within the tax net (tax loss revenue to government is compensated by way of reduced consumption, reduced imports of fossil fuels, etc.). Expert intervention will be required to design business models and find the EIRR.
* **Provide VAT or Custom Duty refund (to the end user, not to the importer) together with the point discussed above to be provided only after installation and certification of green technology by an independent party. This applies to an industry sector, which widely uses mundane technologies to revamp the whole industry of chosen sector to the latest available technologies. Such as the Tea Factories, Milk Chilling Centers and Rice Mills** (Project Completion or Machinery / equipment installation or starts commercial operations). This will ensure post-monitoring requirement of a benefit given. If the VAT & Duty benefit is given to the importer under HS Codes, desired objective will not be achieved since this equipment can be used for other industries/purposes as well. Resulting in a loss of revenue to the government. Hence, offer the benefit only to the investor on submission of completion report.
* **Set up a credit guarantee scheme for SMEs where collateral is not a requirement provided the project meets a set criterion predetermined** and the sheer economic viability of the project and cash flows is factored. Credit extended under this credit guarantee scheme should be treated as equivalent to a facility given under a Treasury Guarantee, which do not require CAR allocation under Basel III and approved by the Central Bank of Sri Lanka.
* **Prepare issuance of Sri Lankan Green Bonds**, thereby following the examples and experiences of other countries in Asia to attract international investors. Bonds can be issued by the State or by the LCBs. If the LCBs issue bonds by collateralizing an existing SCP compliant credit/asset portfolio, these bonds should be considered as part of Tier II capital. In addition to renewable energy projects, SME energy efficiency and biomass energy projects can be included in Sri Lankan green bonds.

In addition to these immediate recommendations, the need for national level coordination mechanism was identified by both experts and stakeholders.

We therefore recommend the establishment of a national multi-stakeholder and inter-ministerial **National Green Finance Steering Group/Platform**, consisting of Ministry of Finance, Ministry of Mahaweli Development and Environment, Sri Lanka Central Bank, and other important stakeholders, to guide Sri Lanka's green finance development.

Short-term actions to be taken by the Sri Lankan Green Finance Steering Group could include:

* Develop Sri Lanka national green finance plan or roadmap (linked to national SCP policy development), joining the efforts already undertaken by the Sri Lanka Central Bank and UNESCAP
* Prepare issuance of Sri Lankan Green Bonds
* Implement credit guarantee scheme and compulsory green lending requirements
* Development of national ESG risk guidelines
* Establish green SME investment facility with international donors

Medium to long-term objectives and actions to be taken by Green Finance Steering Group:

* Use green finance instruments to strengthen competitiveness of Sri Lankan SMEs and the national economy
* Move from single green finance policies to national green finance system
* Introduce SCP as part of School/University curriculum on economics and finance related studies.

Furthermore, it is recommended that the Sri Lankan government will not provide green finance in the form of subsidies to SMEs, but rather to define policy frameworks that increase the competitiveness of companies that make 'green investments'. This would facilitate the presentation of investment proposals as bankable projects for financing institutions.

Specific financial instruments to achieve this goal include provision of tax benefits to green finance borrowers, VAT or custom duty refunds after installation and certification of green technologies, setting up a green credit guarantee scheme for SMEs, setting minimum quotas for green lending by banks, capacity building on green finance for staff of financial institutions.

INTRODUCTION: OBJECTIVES AND REPORT STRUCTURE

The overall objective of the SWITCH-Asia National Policy Support Component is to support the Sri Lankan Government in selecting, adapting and implementing suitable economic and regulatory policy instruments to promote sustainable consumption and production, thereby enhancing the long-term sustainability of consumption and production (SCP) patterns.

Sustainable consumption and production is defined as "the use of services and related products, which respond to basic needs and bring a better quality of life while minimising the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardise the needs of future generations."[1]

The present ambitious development drive in Sri Lanka is rapidly encroaching on the traditional Sri Lankan lifestyles in both urban and rural areas. The aspirational market-led economy is influencing the consuming and producing behaviour of the citizens with rapid urbanisation along with unsustainable SCP patterns. To be able to support an increase in sustainable, eco and resource efficient cleaner production, the demand for cleaner, greener and environmentally friendly and sustainable products, goods and services need to be increased. This is particularly important for middle-income countries such as Sri Lanka, where the opportunities for greener economic growth are numerous, and national consumption is on the rise.

Against this backdrop, introducing suitable and innovative financial and economic instruments (incentives and disincentives) for SMEs is of paramount importance for promoting SCP. Innovative financial and economic instruments to promote SCP include subsidies (such as subsidies for Sustainable Public Procurement), credit facilities (such as green consumption credit and concessionary credit for sustainable production), pricing mechanisms and taxation (Consumption taxes, resource utilization taxes, etc.).

The specific objective of this report is to provide a way forward for green finance supporting the shift to SCP in Sri Lanka, in particular, green financing for SMEs in the sectors of tea, dairy and rice processing as the pilot project before rolling out for all industries in the country. The report provides an overview of the existing financial landscape in Sri Lanka, identifies what works and where the gaps are. In addition, it presents an overview of relevant green finance experiences of other Asian countries and provides recommendations how to promote green finance for SCP and SMEs in Sri Lanka.

This report is structured as follows: Chapter 1 provides an overview of the current situation of existing financial schemes and instruments, including incentives, disincentives, investments and funding mechanisms available to SMEs in Sri Lanka. Chapter 2 summarises the main findings from the stakeholder interviews and consultative meetings conducted about Sri Lanka's green finance. Chapter 3 introduces some of the best practices, good examples and latest developments on green finance in Asian middle-income countries and SWITCH-Asia

[1] Norwegian Ministry of Environment, Oslo Symposium, 1994. https://www.unep.org/resourceefficiency/what-scp

related activities and projects. Chapter 4 provides the recommendations for the increased use of green financial instruments to SMEs in Sri Lanka.

CHAPTER 1: CURRENT SITUATION OF EXISTING FINANCIAL SCHEMES AND INSTRUMENTS FOR SMEs IN SRI LANKA

1.1. Existing Financial Schemes and their Characteristics

There are several financial schemes in Sri Lanka, which could be utilised to promote SCP among SMEs at present, apart from the regular credit extended by the banking, non-banking and specialized financial institutes. A detailed list of schemes available is given in Appendix 1 of this report but not necessarily all schemes are focussed on SCP principals.

In Sri Lanka, the PCIs play a key role in providing access to finance for SMEs. Their attention and involvement to SCP related issues is crucial and hence some structural changes in the financing system are required.

The main characteristics of the existing financing schemes are:

1.1.1. Refinanced to participatory credit institutes (PCIs) & concessionary interest rates to borrowers

PCIs initially disburse own funds and seek refinance from the APEX body. Benefit to PCIs in this case is long term financing in line with the tenor of the asset created minimizing the liquidity risk. Sometimes 100% of the asset value is refinanced depends on the terms of agreement between the APEX body and the PCI. If a lesser value of the asset created is refinanced, the balance will be funded by the PCI's pool of funds. This will require a weighted cost of capital to be computed by PCIs before undertaking the business of financing to regular clients. Refinanced credit with concessionary interest is very effective to promote SME businesses to the end user/borrower. Since it gives leverage over interest cost to be competitive in the market place, reducing the payback period of the investment and cash flow benefits to start capital repayment due to long grace period and tenor. However, the purpose for which these schemes are introduced not necessarily be for SCP but to promote entrepreneurship as a whole or to promote a particular industry or a sector.

1.1.2. Interest subsidized to the PCIs & Concessionary interest rates to borrowers

When interest is subsidized by the APEX body, PCIs have to finance the whole asset value under its common funds. Based on the mix of funding sources within a PCI (either demand or savings or fixed deposits or otherwise) weighted average cost of funds will vary between PCIs dramatically. Therefore, if the onward lending rate is fixed at 12% to borrowers and if the PCI cost of capital is 14%, PCI will refrain from promoting the subsidy scheme since it has an opportunity cost of 2%. Subsidised interest credit is effective to promote SME businesses to the end user/borrower. Since it gives leverage over interest cost to be competitive in the market place, reducing the payback period of the investment but not necessarily a cash flow benefits due to short term repayment without grace periods. However, the purpose for which these schemes are introduced not necessarily be for SCP but to promote entrepreneurship as a whole or to promote a particular industry or a sector.

1.1.3. Technical support / grants to Borrowers by the APEX body

Technical support component is either fully refinanced by the APEX body or less the investor contribution. Hence, there is no PCI funds utilization to carry out this function. Technical support component is very critical for SCP or Green Financing due to the lack of expertise in the SME sector to initiate or embrace SCP/Green technologies. But this requirement can be eliminated through business modelling and making them available to SMEs at their disposal.

1.1.4. Guarantee schemes and insurance

The Agriculture and Dairy Farming Insurance scheme was jointly introduced by the IFC and Sanasa[2] Development Bank PLC. Currently there are 45,000 policies issued and have proved to be a success so far. This gives the comfort for PCIs and client to mitigate any eventuality.

The Sri Lankan Government is negotiating with ADB a guarantee scheme to underwrite the titles in the Northern and Eastern Provinces to facilitate credit to SMEs in those areas.

1.2. Type of Incentives and Effectiveness

This section will critically evaluate the existing incentives and benefits to the borrowers and PCIs whilst exploring the possibility of achieving uptake of SCP practices by SMEs through these mechanisms.

1.2.1. Concessionary interest rates to the borrowers, refinanced to PCIs

By accommodating a concessionary rate of interest to a client, it will reduce the payback period of the project in hand and to undertake a lower IRR project even if the project meets the clients' return on equity (ROE). Therefore, this method can induce entrepreneurs to embrace SCP related borrowings and is effective. Borrowers will enjoy up to a ten-year repayment period inclusive of 2-year grace period to repay the capital.

Similarly, PCIs are in a better position with its liquidity issue of mismatch of funds due to receiving refinanced funds for the same long tenor of the credit extended. Therefore, PCIs will not be reluctant to promote these schemes.

Whether refinanced or not, PCIs' risk profile with the client will not change. Hence, PCIs are in the practice of insisting on collateral. Stronger the collateral they receive, lower the CAR allocation based on Basel / CBSL requirements. Refinancing is just another form of funding requirement of a PCI apart from the liquidity benefit.

Therefore, refinanced concessionary loan schemes benefit the entrepreneurs and very effective mechanism to drive a directive lending practice to achieve SCP.

---

[2] http://businesstoday.lk/article.php?article=7359
https://www.slideshare.net/HemalLokugeegana/ifc-50752726

1.2.2. Subsidised interest rates to the PCIs and as a result concessionary rates to the Borrowers. No refinance

All the benefits accruing to the client/borrower is similar to the 1.2.1 view above apart from the grace period and the long-term repayment method. But PCIs will have to lock in their own funds to cater these loans or credit in general. Therefore, they will not opt for long term lending but limit facilities up to a tenor of 5-year repayment. PCIs may not entertain a grace period too.

PCIs will not have a liquidity benefit as well as the credit risk will remain same. PCIS will ask for collateral to improve on the CAR allocation.

Hence, providing an interest subsidy will benefit the clients/borrowers to a certain degree whilst the PCIs have no benefit from its usual business of lending.

Hence, the effectiveness of this incentive is limited to the borrower and has no effect to the PCIs.

1.2.3. Tax benefits

Tax benefits will drive the desired objective of any initiative, including promotion of SCP practices, since the benefit will be derived only after implementation. This will be eventually validated by the auditor.

The benefits to the borrower are the following:

- Accelerated capital allowance method
- Multiple times of deductible expense similar to the currently available Tax benefit on research and development costs. Triple deduction for Research and Development[3] expenses is allowed, only if a technology advancement and yield development is proved as per the 2016 Budget.

In order to encourage PCIs to embrace SCP-based lending, interest income earned from such lending can be taxed at a concessionary tax rate instead of the current 28% Corporate Tax or to eliminate corporate tax for that part of interest earned altogether. Whilst the end user/borrower benefits on tax concessions stated above PCIs will flock to promote SCP lending if their interest earned is eliminated from Corporate Taxation. Over a period, lending rate in the market place can be brought down as a result, since bank rates are a composite of many factors where taxation has been the biggest burden.

1.2.4. Tenor

One of the most effective benefits from the refinanced schemes for the borrowers as well as for PCIs is the ability to borrow long term. In the eyes of the borrowers due to the long-term

---

[3] https://www.pwc.com/lk/en/assets/document/PwC_Budget_2016_Summary.pdf

repayment ability, their cash flow impact in terms of the loan instalment is highly beneficial. Furthermore, until the business venture or the project become operational, they receive a grace period during which time interest cost only will be serviced. Certain projects interest cost during the implementation period is capitalised to the loan amount, which eases the investors' cash flow further.

Similarly, the PCIs dilemma of funding mismatch of long lending and short borrowings will be addressed through the refinancing schemes. Therefore, PCIs are not in any way reluctant to finance projects so long as the funding matches the asset repayment tenor.

However, the interest's subsidies fail to meet these criteria since the loans are funded through the PCIs own funding sources. Therefore, business as usual terms and conditions will apply to the credit extended. However, the client who borrows from the PCIs get the interest benefit due to PCIs being subsidized to extend such directive lending, but SMEs will not have the ability to borrow long term. This is a hindrance on the cash flow management of SMEs. However, due to reduced interest rate the payback of an investment can be shortened and positive IRR/NPV can be derived by the clients.

Having long term repayment for SCP related credit will be a pre-requisite at the early adaptation stage. Since the first movers to embrace SCP concepts and the benefits will be witnessed/derived in the long term.

1.2.5. Compliance for financing / borrowing

All SMEs and PCIs comply with the CEA and Local Authority licensing and regulations, when it comes to project based financing, whether they are refinanced or not. These are preconditions and part of the credit evaluation to comply with. However, if the clients want to borrow against their own investments of cash or near cash equivalent investments, PCIs may not enforce the environment compliance regulations as a precondition for their credit appraisal.

BOI[4] in addition to the set rules of CEA, strictly monitors EPL method in conjunction with CEA prior to establishing enterprises in the Free Trade Zones.

An effective method of adhering to SCP concepts are through self-regulation which is witnessed in almost all MNCs such as Nestle[5] and Unilever[6] as examples. Through self-regulation, those companies bring about the efficient and productive manufacturing processes, sourcing mechanisms, transporting methods, waste treatment and re-usage of by products or waste. This also called the circular economic environment. The end result is that they become more competitive in the market place and build sustainable businesses, which stand for generations to come.

4 http://www.investsrilanka.com/news/story/4089/BOI-launches-programme-for-the-greening-of-BOI-Zones-and-Enterprises-for-sustainable-Growth

5 http://www.nestle.lk/asset-library/documents/annual-reports/nestle-annual-report-2016.pdf

6 https://www.unilever.com/Images/unilever-annual-report-and-accounts-2016_tcm244-498744_en.pdf

Sometimes the buyers demand that the suppliers or manufacturers to comply with their own expected standards beyond the country specific standards. Further the consumers are well informed now and they demand ethical products or services, hence it is not a choice anymore but a must to manage consumer perception to generate their revenue streams. Going a step further, companies have embraced triple bottom line based marketing strategies and business processes are brought in line to meet the Brand Promise. This constitutes the suppliers or manufacturers to embrace SCP not only the end of pipe treatment strategies.

1.3. Investment Evaluation Techniques

Many SMEs find it difficult to understand the benefits of applying SCP practices and improving resource efficiency. In terms of financing SCP practices, they often do not have the expertise to evaluate the financial feasibility, suitability and acceptability of the project or the investment.

Some of the financial feasibility evaluation criterions are;

- Internal Rate of Return (IRR). This is benchmark rate an entrepreneur will set based on the risk profile of the project concerned. Entrepreneur will implement the project only if the IRR exceeds the benchmark rate. When there is only an economic or social or environmental benefit is derived out of an investment, it is necessary to factor the Economic Internal Rate of Return (EIRR)

- Net Present Value (NPV). IRR has a limitation that it assumes that the cash generated is being reinvested at the same rate for the foreseeable future. To eliminate this misconception, NPV is computed which brings the future cash flows to present context with a predetermined discounting factor to measure which project generate the highest positive wealth. However, when IRR is equal to the Discounted Factor, NPV value is zero.

- Simple Payback. This measures how soon the invested capital is recovered by way of net cash flow or the simple accounting profits.

- Discounted Payback. This enhances the simple payback by bringing in time value of money.

In terms of deriving a direct benefit of an investment, the above techniques can be used for a calculated and informed decision by the entrepreneurs. This applies mostly for the market adaptation investments to be in par with competition. However, this adaptation is used in different context in the literature on environmental science.

Similarly, any end of pipe projects or as a mandatory requirement for the existence of a business, a project can be evaluated from the eyes of EIRR, where the social/environment factors are given a value to determine the feasibility of the project or the investment. This type of investments is perceived as risk mitigation projects in the eyes of the entrepreneur. But from an environmentalist’s point of view, mitigation is any aspect of SCP. Adaptation for an environmentalist is changing the production to suit the environment changes that they operate in, no choice but to adapt.

1.4. Remaining challenges

1.4.1. Cost of funding Vs Interest Subsidy (Fixed / Variable rates)

Banks and financial institutes are in the business of financial intermediation. Hence their cost of funds is a critical factor to determine the onward lending rate to the client. If the authority grants an interest subsidy to PCIs and restrict the on-lending interest rate below their cost of funds, those PCIs will not be encouraged to facilitate the subsidy scheme. To overcome this issue APEX bodies have agreed to consider subsidising variable rate basis to PCIs. This method can be misused by the PCIs for their benefit but will be motivated to disburse funds.

From the eyes of a consumer/borrower it does not matter whether PCIs are subsidised in fixed or variable basis, so long as their cost of borrowings are way below the market rates. Hence, SCP projects can be implemented through subsidised method as well.

1.4.2. CAR Allocation and collateral

PCIs have to allocate CAR for all credit granted under refinance or subsidy loan schemes. Hence, PCIs will look at the most profitable avenues of business conduct. Hence, the order of priority will be the least allocation of CAR and most profitable asset to be pursued.

This come to a critical discussion of PCIs insisting on collateral to extend credit since based on the value and the ease of liquidation of assets mortgaged to PCIs are required to cushion the risk taken with Tier 1[7] & 2[8] capital as per the BASEL III requirement which is exuberated by the CBSL with additional cushion.

SMEs have no understanding of this element and will come to realize such thing only when PCIs insist on collateral to back their borrowings. Since Tier I and II capital is scarce, PCIs allocate resources in the most profitable manner. PCIs leverage capability is depended on the Risk Weighted Asset (RWA) linked CAR allocation. Irrespective of the purpose for which assets have been created be it for SCP, Green Financing or Consumption, global standard set by BASEL Committee applies to all Banks around the world. If the credit guarantee scheme is considered cash or near cash protection for PCIs, then there is no requirement to allocate CAR.

1.4.3. NPLs and Cost of Operations

PCIs will be concerned of the NPLs and cost of operations with lengthy procedures to follow obtaining of refinance or subsidies. Due to this factor, PCIs always mitigate their potential losses through collateralized lending not on pure project feasibility point of view. DFIs used to lend purely based on strength of cash flows and the feasibility of the project. But Sri Lanka has only one such institute at present but their average ticket size of credit is in the range of

[7] Tier I capital / Core capital is composed, primarily, of disclosed reserves (also known as retained earnings) and common stock. It can also include noncumulative, nonredeemable preferred stock. Read more: Tier 1 Capital http://www.investopedia.com/terms/t/tier1capital.asp#ixzz4ueNxJ7h5

[8] The first component of Tier 2 capital is revaluation reserves, general provisions, hybrid capital instruments that have mixed characteristics of both debt and equity instruments, subordinated term debt with a minimum original term of five years or more. Read more: Tier 2 Capital http://www.investopedia.com/terms/t/tier2capital.asp#ixzz4uePfPpRF

LKR 10.0 MN, which is not adequate to cater the SME sector. Irrespective of the purpose (SCP or Green Finance) for which credit is granted, treatment of NPL computation/treatment will be the same. But due to the collateral held, treatment of NPL provisioning for Bad and Doubtful debt vary.

1.4.4. Refinance Auction System

Whilst PCIs are required to bid for their allocation of funds and utilization of same in a given time, PCIs may be prompted to lend to deserving parties as well as unrelated clients to meet targets. Since the industry specific or cause specific uptake of credit is relatively slow.

1.4.5. Focusing on one element of the product/production life cycle

It was observed in the past certain schemes develop one element of the product life cycle which result in wastage, such as the dairy industry. Where there is excess production of milk but the logistics, chilling facility enhancement, finished product development was not thought through. Hence, understanding the holistic approach with every touch point of the product life cycle is critical. SCP also can be applied to every touch point of a product life cycle if applicable.

1.4.6. Expertise in project financing

Capacity development of the project financing special emphasis on SCP principals is required since this expertise was concentrated only at the Head Office or at Regional Offices mostly. Ever since the dedicated DFIs namely National Development Bank Ltd (Now called NDB PLC) and Development Finance Corporation Ltd (now called DFCC Bank PLC) converted to commercial banking special emphasis of project financing has been deteriorated. Foreign banks are not in the business of project financing unless it is a syndicated high value facility. PCIs internal staff capacity building is critical, specially training on SCP concepts.

1.4.7. Evaluation of EIRR and business modelling

There is lack of expertise for the general credit officers to understand the EIRR. This is where business modelling is required with the expert knowledge of the research arm of the relevant industry to identify where the SCP can be applied. This will ascertain financial and non-financial benefits, which translated to compute EIRR. Service provider firms also have the capacity to liaise with PCIs to achieve this objective.

1.4.8. Consistency in TAX regimes

Governments may come and go, but the country policy to develop an industry or sector must be consistent to meet the local and global competition. Tax benefits given to nurture SCP or any industry must be consistent to win the confidence of investors. Discontinuation of a tax benefit should be faced out without withdrawing at once, also must eliminate retrospective taxes enforced. Due to ad-hoc, hasty tax planning by the government will make investors think twice since what was discussed under the point 1.3) will not hold true? All ratios, timelines will get impacted.

CHAPTER 2: FINDINGS FROM THE SECONDARY RESEARCH AND INTERVIEWS CONDUCTED

2.1. Common Concerns of Stakeholders

The SME sector does not maintain proper set of accounts of their businesses, which in turn makes it difficult for the PCIs to assess the credit worthiness and repayment capacity. This results in extending credit with adequate security only.

2.2. Policy Makers' Point of Views

Under one scheme it is difficult for an individual or a firm to borrow twice for the same project. But under different schemes, one can borrow many a times for the same project so long as the repayment is ensured by the participating banks. This could happen without a bank knowing that the same project had been funded by a different bank under a different loan scheme or subsidy scheme. Due to the above, it is questionable whether the real objectives of economic development are taking place.

ADB is to finance USD 500 million as seed capital with private banks also taking a stake of the company. Most likely this will materialise in the later part of year 2017. The main objective is to address the collateral issue. Borrower will have to pay a premium to obtain this guarantee. If a borrower defaults, the banks will be paid 67% ($2/3^{rd}$) by the guarantee scheme. North & East properties are not legal tender for mortgages and this scheme will address this issue too.

JBIC - 5.1bn will be available for lending at a 6.5% rate of interest to be launched in November 2017. For environmental pollution control, energy conservation, waste management techniques. Consultancy component will be lent at 2% pa and 100% refinanced to the participating Bank.

2.3. PCIs Perspective

Given below are some of the common concerns PCIs have identified;

- New entrepreneurs find it difficult to raise finance due to lack of collateral and history. Also, SMEs are reluctant to be the first in the market.
- Why should SME embrace Green Financing is not known to them.
- SMEs lack the technical and financial expertise to understand the investment.
- If the tax benefit is given to the Bankers they will be motivated to extend credit to specific industry or industries focused on the start-ups, etc.

2.4. Multilateral Agency Views

Banks are looking for opportunities in the agri space, but due to unreliable data, they are unable to incorporate strategies to tap this market more. Agriculture contributes 7.1% of the GDP[9] but utilizes 27% of the labour force as per the Census and Statistics Department. Surveys conducted independently show that the rural community register themselves as farmers but their primary source of income is from other means than farming. Hence reliability of statistics is a matter of concern.

Many SMEs in Sri Lanka have two sets of accounts and financially indiscipline. They need to develop the credibility, transparency and discipline in honouring the tax. Hence, tax based incentive scheme will have a little impact or influence in the SME sector. Unless the benefit is given to SMEs by way of exceptional tax benefits and widens the tax payers.

SMEs do not have the understanding of their own to embrace Green Financing and the benefits, since they have not got any idea how the payback is derived. At the same time SMEs are motivated by short-term profit making, whereas SCP initiative/investments may take a longer gestation period. Of course, through subsidized/concessionary loan scheme this can be promoted. But larger SMEs are already looking at green financing for bio digesters, solar electricity, organic fertilizer, etc. activities.

Following National Level Policies are proposed;

- Ground Water Extraction policy
- Usage of Agri Chemicals Policy
- Cultivation Policy

2.5. Funding Sources to the Country and Financial System

The financial system, which includes the banking sector and the capital/debt markets constitutes to more than 68%[10] of assets under management. These are the main vehicles used to perform the role of financial intermediation within the country. However, the private arrangements such as crowd funding, seed capital provision, angel investments, venture capital and private equity participation are not covered in this scope of work.

2.5.1. Inter-governmental borrowings

The government's borrowing depends on the powers vested on them by the constitution[11] and fiscal management laws. Some types of borrowings are grants or concessionary loans or commercial term loans. Grants also can be given for many reasons such as for equalization, specific (open ended or close ended), etc.

---

[9] Department of Census and Statistics

[10] Central Bank of Sri Lanka, Annual Report 2016

[11] IMF Staff Country Report No 10/333 of Oct 2010

When a government borrows from another government, rates are very attractive and also can be associated with conditions attached to it for utilization. These types of conditional borrowings are used for Green Financing or directed lending for a sector or to uplift a particular province or a unique project such as water purification, etc.

Generally, government borrowed funds are utilized either through the Treasury or Ministry of Finance or CBSL or The Banking Sector.

2.5.2. Multilateral Organizations

Multilateral development agencies such as IFC, JICA, ADB or KFW will lend money to governments as well as private institutions as the case may be. If the government seeks assistance from these agencies, the rate of interest can be very attractive than the market rates and will be done through the public-sector arm[12].

Multilateral agencies are focussed and the objectives of funding are uniquely identified. The post-finance monitoring and evaluation is well structured. One such example of green financing in Sri Lanka was the ADB funded “E-Friends” scheme which was initially given at a very lower rate of interest at 6% p.a., when the market interest rates were in the range of 18%p.a. These funds were given by way of refinancing the PCIs by the Apex body as the CBSL. The purpose of the funds was predominantly for end of pipe waste treatment activities whilst some of the SCP activities also been looked at such as efficient kilns, heating systems, temperature control mechanisms, insulation, energy efficient machinery usage, etc. There was a technical support scheme with 2% interest on the cost of technical support where 25% of the cost was funded by the investor and 75% by the scheme with a maximum threshold/ceiling for the amount concerned. Revolving funds of this scheme will be made available very soon to the market in November 2017[13].

2.6. Usage of Government Funds

The Sri Lankan government also set aside funds through the budgetary allocations for various reasons and purposes. Some allocations are for purchasing of produce at a secure price for farmers such as Paddy Purchase Scheme at fixed price or will be subsidising the cost of an event such as “RiviBalaSavi”, “JayaIsuru”, “GoviNavoda” loan schemes available in the market place. These types of funding can be misused or may not necessarily achieve the set objectives due to the administrative deficiencies as witnessed in the Paddy Marketing Board[14] practices in the past.

However, the interest subsidy schemes are somewhat successful since funds are managed through the banking sector participants. However, the banks have an uphill task of meeting the fixed rates since some banks’ funding sources are as such that their cost of funding is greater than the stipulated rate by the authority. In that case although the scheme is available, banks will not be inclined to promote the product/scheme. To overcome this issue, MoFP has

---

12 Interviews with IFC, ADB, GIZ

13 Based on interviews with MoFP, DFCC, NDB

14 http://www.thesundayleader.lk/2015/02/15/paddy-marketing-board-removed-from-purchasing/

come up with a variable rate feature where 50% of the onward lending will be subsidised to the Bank and consumer rates are also subject to change due to market conditions.

2.7. Green Bonds

Bonds can be issued at two different stages such as;

- Raise Initial capital for onward lending for Green Activities predetermined by the managers to the issue

- Securitize the current asset portfolio in line with Green Activities and sell it in the market place to raise more funds for the same purpose

2.8. Self-funded by the Financial System

The banking sector represents well over 60% of the financial system in Sri Lanka and they are in the business of financial intermediation. Hence banks can source funds from the general public and institutions. Therefore, SCP financing not necessarily be incentivized but be a part of the usual credit appraisal techniques. However, ever since the dedicated development banks namely DFCC and NDB had been converted to commercial bank status, the risk-taking ability of these two banks has decreased tremendously. Meaning the project based or cash flow based lending with higher risk appetite is no more.

CHAPTER 3: GREEN FINANCE EXPERIENCES FROM ASIA

This third chapter on international experiences of green finance from Asia includes, first, a brief introduction to the situation of green SME finance in Asia. Second, an overview of the most relevant Asian country experiences. Third, an overview of international initiatives to support green finance in Asian countries. And fourth, examples of green technology and finance for SMEs in the sectors; dairy, tea and rice processing.

3.1. Background on Green SME Financing in Asia

Overall, the lack of adequate financing green options for SMEs is still a great obstacle in opening up potentials for sustainable consumption and production (SCP), including climate protection by means of renewable energies (RE) and energy efficiency (EE) in Asian developing and newly industrialised countries.

The Asian governments and industry's response to the needed switch to more responsible production and consumption has already triggered investments in green technology, workforce qualification and higher education. To facilitate a transformation of Asian industry sectors, in particularly SMEs, will generate new green financing needs.

Green finance for SMEs requires a constructive government role, taking a leading role in providing appropriate regulatory frameworks for green finance. So far, only a few financial institutions in Asia have integrated environmental and social governance (ESG) factors into their lending or investment decision making processes. Green banking and sustainable investment are still a niche market, and a few staff in the industry has been trained in green finance issues.

Further, taking into account the particular situation of SMEs in Asia, governments in the region need to improve the creditworthiness of companies by streamlining corporate registration schemes and by devising simple but robust accounting requirements. Currently, complex business administration schemes and cumbersome bookkeeping requirements keep large sections of SMEs in informal settings, with no access to finance.[15]

Financing institutions (FIs) need to continue learning about the economic benefits associated with companies that invest in green technologies and actively support them in the process with new financing models. Various capacity building programmes for FIs and their staff have been launched in Asia.

Barriers on the SME demand side include difficulties generating any demand for green investments among domestic businesses. Small businesses in particular often lack the necessary accounting documents and information at all to qualify as borrowers. Beyond that, they are often not in a position to raise the collateral necessary to receive a loan. In many

[15] (Highlights from the 2017 Trade and Development Regional Forum organised by Thailand's International Institute for Trade and Development http://www.switch-asia.eu/news/linking-trade-development-for-inclusive-sustainable-growth/)

cases, they also often lack the knowledge to judge which green investments would actually make sense for them.

Barriers on the FI supply side, creditors also demonstrate a variety of deficits. Many credit institutions often lack the technical know-how to decide if a loan for a supposedly green technology makes sense in terms of environmental benefits. The banks are also frequently reluctant to take a risk on providing financing for a technology that may not have fully proven itself yet.[16]

3.2. New Green Financing Trends in Asian Countries

3.2.1. Recent policy trends in green finance in Asia

Over the last three years, a number of Asian countries have developed national policies to advance green financing, including Bangladesh, China, India, Indonesia, Mongolia and Vietnam as summarised in Table 1 below.

Table 1: Green finance policy developments (based on Volz, 2017)[17]

2014	2015	2016
Indonesia OJK: Roadmap for Sustainable Finance in Indonesia 2015-2019 **Mongolia** Bank of Mongolia & Mongolia Banking Association: Mongolia Sustainable Finance Principles and 4 Sector Guidelines **China** CBRC: Green Credit Monitoring & Evaluation mechanism and Key Performance Indicators Checklist launched PBRC: Green Finance Task Force	**Bangladesh** Bangladesh Bank: Updated Guidelines on Environmental and Social Risk Management (ESRM) for Banks and Financial Institutions **Vietnam** State Bank of Vietnam: Directive on Promoting Green Credit and Managing Environmental and Social Risks and 10-sector checklists **China** PBOC: Green Financial Bond Directive and Green Bond-Endorsed Project Catalogue for bonds issued by financial institutions and corporations National Development and Reform Commission (NDRC): Guidelines for enterprise and municipality bonds PBOC: Green Finance Committee	**India** Securities and Exchange Board of India (SEBI): Disclosure requirements for issuance and listing of Green Bonds **Hong Kong SAR** Securities and Futures Commission: Principles of Responsible Ownership. **Bangladesh** Bangladesh Bank: 'Integrated Risk Management Guidelines for Financial Institutions'

---

16 https://www.adelphi.de/en/news/green-finance-asia-five-new-country-studies-show-opportunities-small-businesses

17 Volz, U. (2016): *Fostering Green Finance for Sustainable Development in Asia*. Report Prepared for the 2016 Annual Meeting of the Asian Development Bank, Bonn: German Development Institute, *https://www.die-gdi.de/uploads/media/Fostering_Green_Finance_in_Asia_Volz.pdf*

3.2.2. Green (climate) Bonds

Green bonds are emerging as a major financing instrument to promote low-carbon development and the green economy in Asia. Labelled green bonds are bonds of which the proceeds are used for green assets and projects and are labelled accordingly.

A bond is a debt instrument with which an entity (government, multi-national bank or corporation) raises money from investors. The bond issuing entity gets capital while the investors receive fixed income in the form of interest. A green bond is very similar. The only difference is that the issuer of a green bond publicly states that capital is being raised to fund "green" projects, which typically include those relating to activities such as renewable energy, clean transportation and sustainable waste management.

The Asian market for green bonds is currently dominated by China, South Korea, India and Japan (See Figure 1 below)

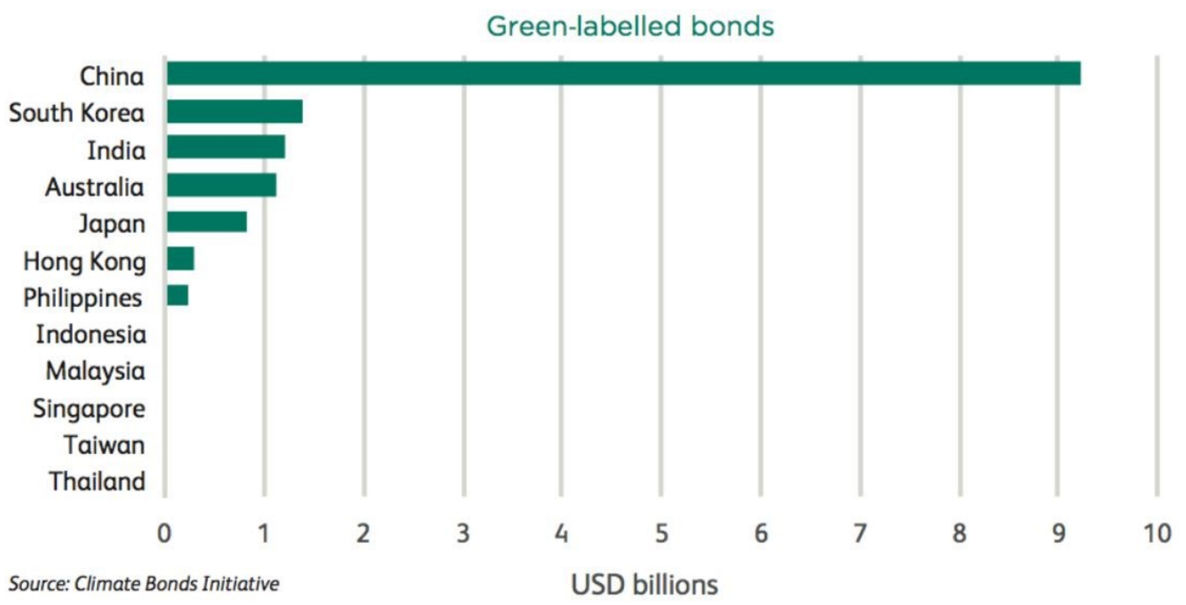

Figure 1: Green bonds issued by country (source: Climate Bonds Initiative)[18]

In addition to renewable energy projects, SCP-related projects for SMEs can be part of green bonds. For example, industrial energy and water conservation projects for upgrading technology and process, equipment and facilities to reduce energy use, water use and pollutants. This can include cogeneration projects. Circular economy projects that improve resource reuse, remanufacture, recycling and waste minimization. For the Sri Lankan context, green agriculture development projects including organic agriculture production that adopt sustainable agriculture techniques and ecological principles, could be of interest. Agriculture supply chain projects can also qualify as well as green forestry development projects,

---

18 http://www.lifegate.com/people/news/asia-finance-green-bonds

including afforestation projects. Construction, operations and maintenance of biomass power generation projects (for instance using agricultural waste) can also be part of Green Bonds. [19]

3.3. Recent Asian Country Development on Green Finance

3.3.1. China's policy framework for green finance

In 2007, China's Banking Regulatory Commission began to develop Green Credit Guidelines that evolved from an initial principle-based approach to a standardized, metrics-driven performance assessment. The People's Bank of China established a Green Finance Task Force resulting in 14 recommendations across four broad themes: information flows, legal frameworks, fiscal incentives and institutional design. On 1 September 2016, the People's Bank of China and six other agencies jointly issued "Guidelines for Establishing the Green Financial System".

Highlights and main messages of the guidelines include[20]:

- Primary purpose of establishing the green financial system is to mobilize and incentivize more social (or private) capital to invest in green sectors, while restricting investment in polluting sectors.
- Guidelines include a series of policy measures to support and incentivize green investment. These incentives include re-lending operations by the People's Bank of China, specialized green guarantee programmes, interest subsides for green loan-supported projects, and the launch of a national-level green development fund.
- Outlines the role of securities market in financing green investment. Requires a unification of the domestic green bond standards, support qualified green companies to raise funds via IPOs and secondary placement, support the development of green bond indices, green equity indices and related products, and require a gradual establishment of the mandatory environmental information disclosure system for listed companies and bond issuers.
- Emphasize the role of local governments in supporting the development of green finance, and encourage local authorities to establish specialized green guarantee mechanisms and green development funds.

3.3.2. China green climate bonds development

China is emerging as the largest green bond market globally. In 2016, Shanghai Pudong Bank raised $5 billion in green bonds, the Industrial Bank about $1.5 billion and Bank of Qingdao $600 million.[21] They primarily fund climate change mitigation and adaptation projects and are increasingly considered an ideal vehicle for accessing private sector capital. Green bond

---

[19] IISD (2015) How to issue a Green Bond in China. International Institute for Sustainable Development. http://www.iisd.org/library/how-issue-green-bond-china

[20] http://www.un-page.org/people%E2%80%99s-bank-china-issued-%E2%80%9Cguidelines-establishing-green-financial-system%E2%80%9D

[21] https://www.ft.com/content/9ee1a5f4-20d2-11e6-aa98-db1e01fabc0c

issuance has been growing rapidly in recent years, from USD 11 billion (RMB 72.4 billion) of issuance in 2013, to USD 36.8 billion (RMB 242 billion) in 2014 and USD 41.8 billion (RMB 275 billion) in 2015.

Box 1: Green Bond issuance procedure in China consists of five main steps.[22]

PREPARATION steps 1-3:

1. Identify qualifying green projects and assets

The key feature of a Green Bond is that the proceeds are for green projects or assets. The "greenness" of a company does not matter - it's about the physical assets or projects.

Guidance about what assets or projects qualify as green can be found at the *China Banking Regulatory Commission* or the *International Climate Bond Standards Scheme.*

2. Arrange independent review

Credible independent review and verification protects institutions' reputation. Verifiers can also help identify green assets.

Verifiers include Clean Development Mechanism (CDM) or Emission Trading Schemes (ETS)-qualified organisations. International issuers can use *Climate Bonds approved verifiers* to confirm their green credentials.

3. Set up tracking and reporting

The value of the assets or projects must stay equal to, or greater than, the amount of the bond. The issuer needs to track this and be able to show how they are doing it — transparency is essential.

ISSUANCE steps 4 – 5:

4. Issuance of Green Bond

The usual steps apply here, as for any other conventional bond:

- Seek required issuance approval from regulators
- Structure the bond working with an investment bank or advisor; get credit rating.
- Market and price the Green Bond.

5. Monitor use of proceeds and report annually

Confirm at least each year, through a public report, that the funds are still properly allocated to green projects. This can be done by an auditor or in a letter signed by an authorised officer of the company.

In December 2015, the Peoples Bank of China (PBoC) established regulations for green financial bonds, including guidance on, and requirements for green definitions, management and use of bond proceeds, and reporting. Shanghai Stock Exchange set up rules for its green bond pilot program for listed companies and private placement from Small and Medium

[22] IISD (2015) How to issue a Green Bond in China. http://www.iisd.org/library/how-issue-green-bond-china

Enterprises (SME), which are similar to the requirements from PBoC. In 2016, China issued an estimated RMB 300 billion (USD 46 billion) of green bonds.[23]

Box 2: SWITCH-Asia Green Finance case study in China - Scaling up Energy efficiency and Cleaner Production in Small and Medium-sized Enterprises through Integrated Solutions and Green Credit (FEES - Financing Energy and Environmental Solutions)

Despite the ambitious national policy developments, in China lack of access to finance is still the greatest barrier to implementing high-cost cleaner production (CP) and energy efficiency (EE) projects by SMEs. There is a gap between SMEs and financial institutions (FIs). Many times, SMEs lack the capacity to make a compelling business case to FIs. On the other hand, FIs still lack the knowledge to gauge the EE/CP related risks and opportunities. To address this problem, competent environment and energy service providers with integrated technical and financial solutions are indispensable.

The FEES project aims to: 1) enhance the capacity of Shaanxi SMEs to access green credit and to implement EE/CP; 2) develop risk-sharing mechanisms between government and financial institutions; and 3) strengthen local energy service providing EE/CP solutions.

More information at:

http://www.switch-asia.eu/projects/fees-financing-energy-and-environmental-solutions/

3.3.3. Indonesia's green finance roadmap

Indonesia's financial regulator OJK launched its Roadmap for Sustainable Finance in 2015, the country's first attempt to map out the developments needed to advance sustainable finance through to 2019. The Roadmap covers banking, capital markets and non-bank financial services sector, and includes measures to increase the supply of sustainable financing through regulatory support and incentives, targeted loans and guarantee schemes, green lending models, green bonds, and a green index.[24] The Roadmap includes three strategic goals and a number of specific short-term and medium-term activities to achieve the goals within the next decade (see Figure 2).

23 https://www.climatebonds.net/resources/Roadmap-for-China/April/2016/Paper2

24 UNEP FI (2016) Green Finance for Developing Countries - Needs, Concerns and Innovations.

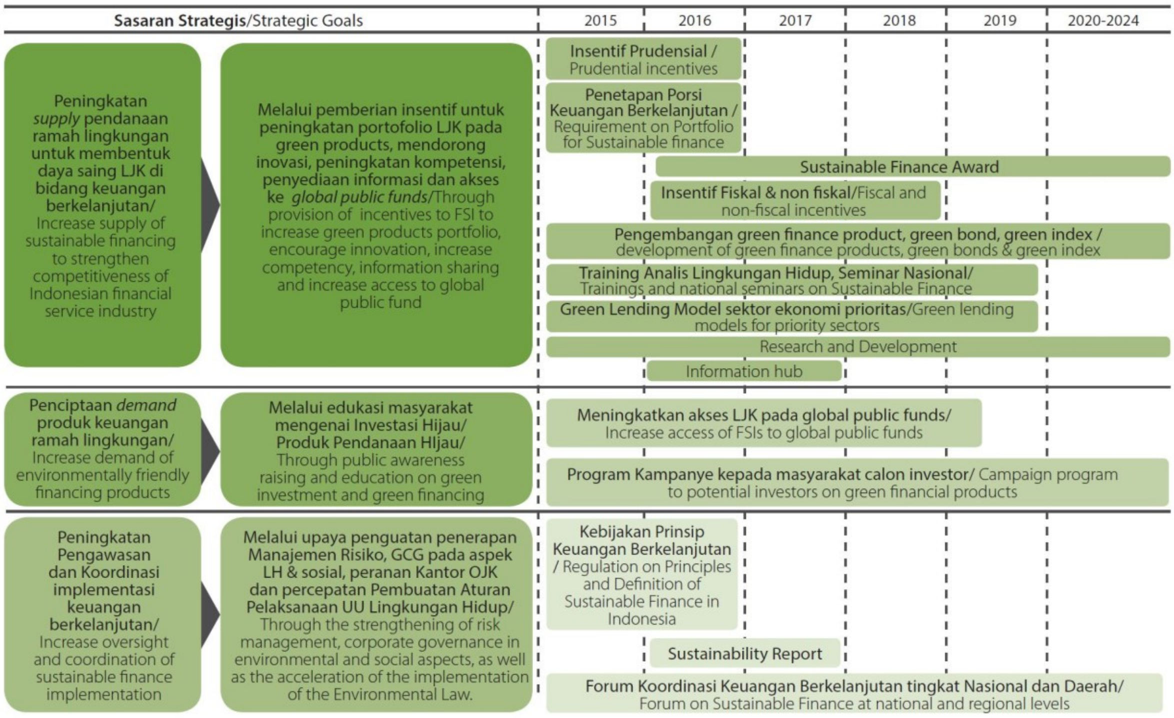

Figure 2: Indonesia's green finance roadmap

Another example from Indonesia is the country's **Environmental Soft Loan Programme,** which has been described as the "flagship programme" of the Ministry of Environment in supporting investments in clean and environment technologies for rice milling and palm oil processing sectors.

Local commercial banks, both private and state-owned, have been cooperating with the Government of Indonesia through the Ministry of Environment and Ministry of Finance in implementing a number of economic incentives or instruments, particularly environmental credit schemes, since beginning of 1990s. One of the economic measures implemented since 1992 is a programme of revolving environmental soft loans. The programme is a joint effort between the government of Indonesia Bank Indonesia (the Central Bank) and channelling banks.

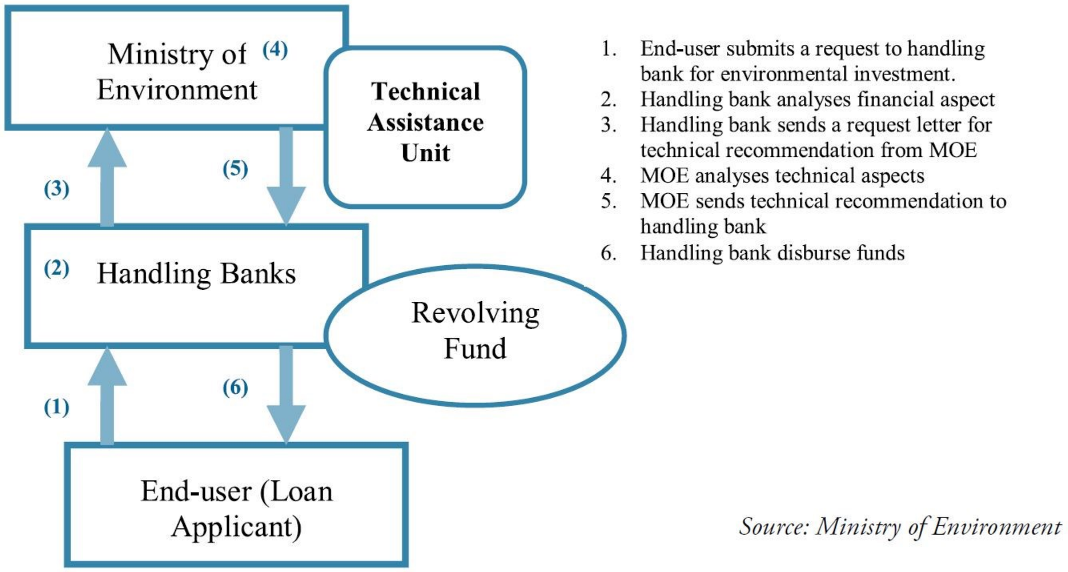

Figure 3: Role of Indonesian banks in the Environmental Soft Loan scheme. (source IFC, Scoping Study on Clean Technology Opportunities and Barriers in Indonesian Palm Oil Mill and Rice Mill Industries)

Bank Indonesia (and later OJK) has been an active participant in the Sustainable Banking Network, an informal group of bank regulators and banking associations that was launched by the IFC in September 2012. The Network applies a cross-fertilisation approach and has been used to learn from other countries' experiences and to adapt the practices to national conditions. To improve access to finance for SMEs, Bank Indonesia introduced two regulations (No.14/26/PBI/2012 and No.14/22/PBI/2012) requiring banks to increase productive loans and loan access for SMEs. Since the beginning of 2013, Indonesian banks legally are required to give 20% of total loans to SMEs.[25] How much of this can be classified as green finance is fully not clear.

3.3.4. India's green bonds and SME finance

India's green bonds market is developing, the first green bond was issued in 2015 by Yes Bank (USD 250 million) and in 2016 its first certified climate bond issued by Hero Future Energies (USD 44 million) to fund wind energy projects. Some of the other green bond issuers include EXIM Bank (USD 500 million), which was oversubscribed over three times showing tremendous interest among investors, Axis Bank (USD 500 million), which was listed on the London Stock Exchange, and India's energy producer NTPC which launched a USD 300 million bond to finance renewable projects using its fossil fuel balance sheet. In order to maintain the credibility of the bonds, the Securities and Exchange Board of India (SEBI), the securities market regulator, also issued green bond listing requirements, emphasising disclosure requirements in particular.[26] The SEBI guidelines released in May

---

[25] Volz, U. (2015): *Towards Sustainable Finance in Indonesia*, Geneva: UN Environment Inquiry into the Design of a Sustainable Financial System, http://unepinquiry.org/wp-content/uploads/2015/04/Towards_a_Sustainable_Financial_System_in_Indonesia.pdf

[26] http://www.lifegate.com/people/news/asia-finance-green-bonds

2017 are a signal to market participants to scale up issuances across sectors, improve reporting, disclose the impact of green bonds funded projects, and catalyse broader investor interest in the local green bond market. The first interaction between SEBI and market players following the launch of the guidelines was held on 27th July at the National Stock Exchange in Mumbai.[27]

In terms of support for the food processing SMEs, the Indian Government is likely to announce incentives for small and medium food processing units in areas such as rice and tea in the national budget to promote the sector and boost manufacturing activities. The impetus may come through a scheme - Sampada -- under which 35 per cent subsidy could be given on the total investments, a source said. The source added that states would be requested to exempt these units from levies like VAT.[28]

3.3.5. Vietnam's Green Investment Facility

The Green Investment Facility (GIF) is one of the most interesting projects with regard to access of SMEs to green finance in Vietnam. Supported by the Danish Government, the GIF aims at promoting the uptake of energy efficiency measures **by SMEs in the brick, ceramic and food processing sectors.**

The GIF offers loan guarantees and grants for SMEs with fewer than 300 employees that invest in energy efficiency measures. In order to be eligible for funding, the planned measure should reduce the company's energy consumption or greenhouse gas emissions by at least 20%. The investment sum has to be between VND 400 million and 4 billion (EUR 17,000 – 165,000). If these conditions are given, GIF can guarantee 50% of the value of a loan. A unique feature of the programme is that the loan guarantee can be given to any bank in the Vietnamese market – it is not restricted to certain financial institutions. If the savings achieved through the investment exceed 20%, the SME will receive a grant covering between 10 and 30% of the borrowed amount depending on the savings achieved. The GIF is expected to promote access to finance for about 160 SMEs. By June 2015, around 90 companies had contacted the project, out of which eight were waiting for loan approval. Total fund volume amounts to VND 110 billion (EUR 4.5 million).

---

27 https://www.climatebonds.net/2017/08/india-events-focus-green-finance-regulation-adds-fillip-munis-get-reboot-look-more-bond

28 http://economictimes.indiatimes.com/sme-zone/sme-policy-trends/government-may-give-incentives-for-food-processing-smes-in-budget/articleshow/56715150.cms

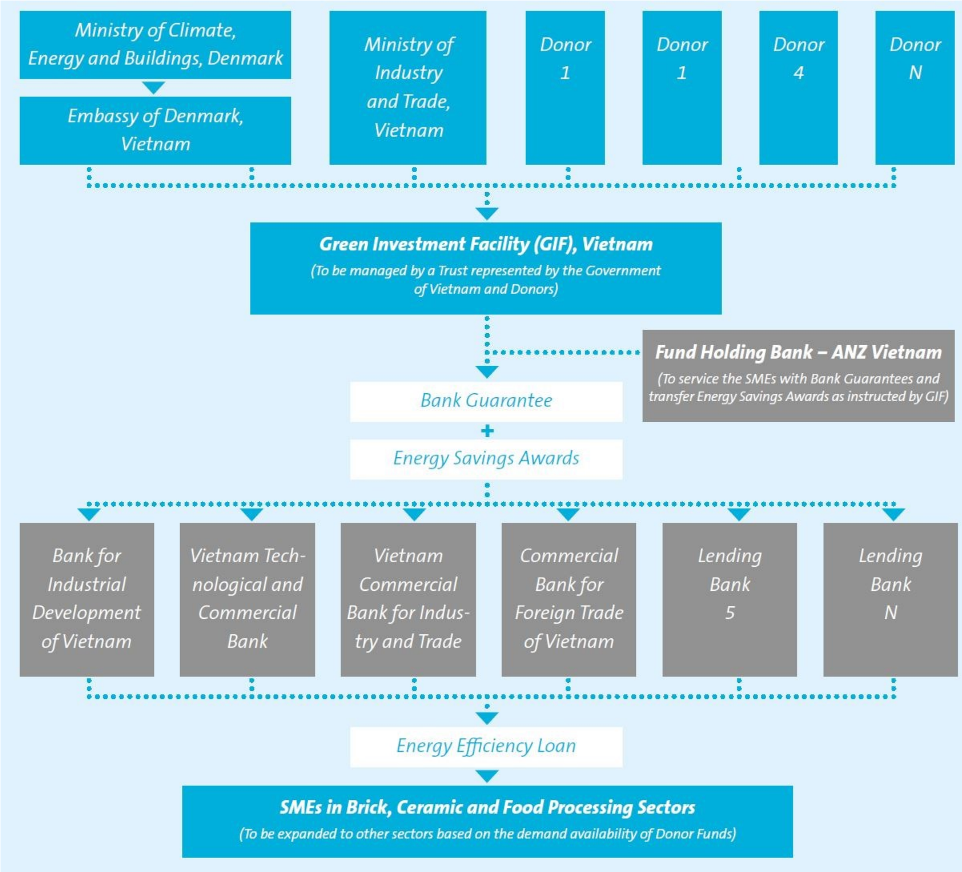

Figure 4: Structure of the Vietnam GIF (source: SWITCH-Asia Network Facility)[29]

3.3.6. Bangladesh green policy and finance frameworks

The Bangladesh Bank offers targeted refinancing lines to banks, refunding at reduced interest rates for loans given to priority areas such as renewable energy. Launched in 2009 with an initial focus on solar energy, biogas and effluent treatment projects, its scope has been continuously expanded and now covers 47 items. Bank loans for projects in the included fields can be refinanced by the Bangladesh Bank at 5% provided that the interest charged to bank customers does not exceed 9%.

Bangladesh Bank: Updated 'Integrated Risk Management Guidelines for Financial Institutions' in 2017. **The Environmental Risk Management Guidelines (ERM Guidelines) for Banks and Financial Institutions** was another important policy guideline issued by Bangladesh bank for facilitation of green finance in the country. The first version of the guideline was issued in 2011 which required the banks and financial institutions to conduct a preliminary review based on the due diligence checklists, and a detailed environmental review prior to making investment decisions in projects. In 2013 by Bangladesh Bank jointly with International Financial Corporation (IFC) assessed the implementation experience of ERM Guidelines. Based on the findings, Bangladesh Bank has published the updated version of the guidelines, now termed as **Environmental and Social**

29 http://www.switch-asia.eu/publications/country-study-smes-and-access-to-green-finance-in-vietnam/

Risk Management (ESRM) Guidelines in February 2017. The new ESRM Guidelines has incorporated risk mitigation measures and integrated environment and social risks into overall credit management in a more comprehensive manner. The updated version contains more robust quantitative risk rating system compared to the subjective qualitative risk assessment method of the previous ERM Guideline. It has included evolving contemporary social and climate risks for the country and provided user-friendly reporting features for banks and financial institutions.

Bangladesh Bank has set the minimum annual target of direct green finance at 5% of the total loan disbursement since January 2016 for all banks and financial institutions. The green banking policy guidelines also requires banks and financial institutions to form a Climate Risk Fund and allocate at least 10% of their Corporate Social Responsibility budget to this fund. This fund can be utilised either through providing grants for implementing relevant projects or financing green projects at concessional interest rates.

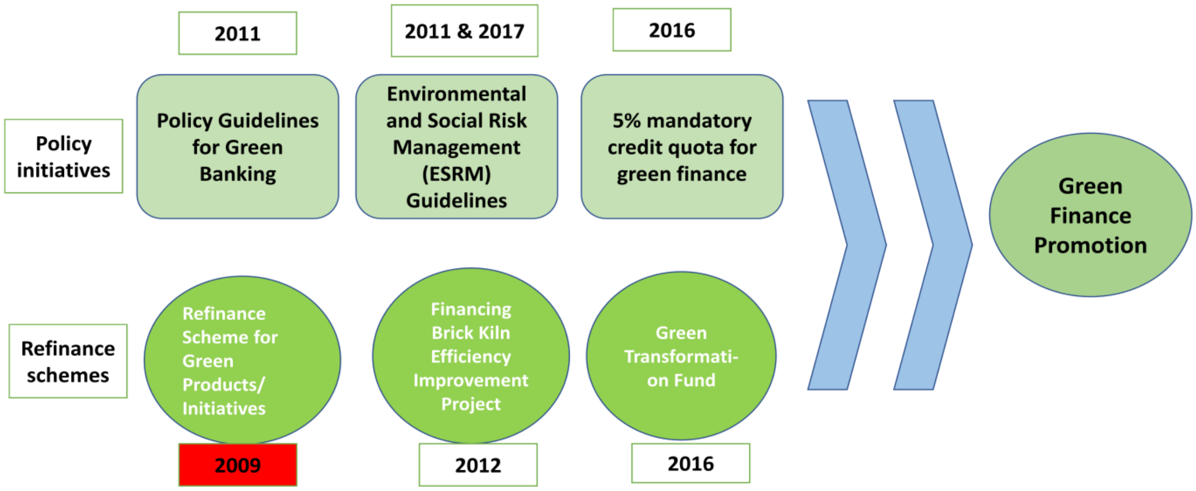

Figure 5: Green policy and financing framework in Bangladesh (Source: Azim, 2017)[30]

A total of 38 banks and 21 Financial Institutions so far have signed agreements with Bangladesh Bank to participate in the **Refinance Scheme for Green Products/ Initiatives**. BDT 2811.7 million has been refinanced till June 2016 under this scheme. This revolving refinance scheme was established by the Bangladesh Bank with BDT 2 billion from its own fund in 2009. Initially launched with 10 products, the product line has increased to 50 types under 11 categories.[31] The following table depicts the disbursement trend for different products under the scheme since 2012.

---

30 Azim, G. (2017) Innovative Green Financing Schemes of Bangladesh: Lessons from an Early Mover towards Green Transformation. Conference paper presented at 3rd International GRF conference, Brighton 24-26 June 0217

31 Khan et al (2017) Financing Green Growth in Bangladesh: Challenges & Opportunities. UK AID and Economic Dialogue on Green Growth.

Table 2: Disbursement trend of BB refinance scheme for green products from 2012 – 2016 (million BDT) (Source: Bangladesh Bank Annual Report 2015-16)[32]

Green product category	FY12	FY13	FY14	FY15	FY16
Bio gas	133.2	113.6	212.8	83.3	84.8
Solar home system	10.5	40.2	32.2	87.5	114.7
Solar irrigation pump	8.4	0.0	17.9	26.5	0.6
Solar assembly plant	248.8	122.7	49.6	148.1	16.3
Solar mini-grid	0.0	0.0	0.0	0.0	10.0
Effluent treatment plant	22.2	57.4	10.0	0.0	58.0
HHK technology in brick kiln	55.0	172.2	59.0	47.0	177.8
Vermicompost	0.0	0.0	0.0	1.1	1.6
Green industry	0.0	0.0	0.0	0.0	400.0
Safe working environment for textile & garments industry workers	0.0	0.0	0.0	0.0	35.7
Organic manure from slurry	0.0	0.0	0.0	0.0	0.2
Paper waste recycling	0.0	0.0	0.0	0.0	20.0
Total	**478.1**	**506.1**	**381.5**	**393.5**	**919.7**

32 https://www.bb.org.bd/pub/annual/anreport/ar1516/index1516.php

3.3.7. Mongolia's sustainable finance principles

The **Mongolian Sustainable Finance Principles** are a set of voluntary principles developed through a public-private dialogue between the Mongolian Bankers Association (MBA), the Mongolian Ministry of Environment, Green Development and Tourism and the Bank of Mongolia, with international support from the Dutch development bank FMO and the IFC, through the Sustainable Banking Network (see below). These voluntary principles were developed with CEO engagement by Mongolia's 13 commercial banks. They are part of a broader national Green Development Strategy with ambitious targets for SCP and energy efficiency, ecosystem and environmental protection, green jobs and poverty reduction, and urban and regional planning. The Sustainable Finance Principles are comprehensive and include commitments not only on environment, but also on people and communities, cultural heritage, green growth, financial inclusion, corporate governance, transparency and accountability. They have been backed by four specific sector guidelines in the areas mining, construction, manufacturing and agriculture. All Mongolian commercial banks have adopted the principles and sector guidelines including reporting annually on their progress in implementing the principles to the MBA. Based on the initial success of the initiative, the MBA, in partnership with the Ministry of Environment and other key stakeholders, is planning to launch a national green financing vehicle to encourage investment in clean, green and environmentally friendly projects.[33]

3.4. International Initiatives Supporting Green Finance in Asia

This section will provide an overview of networks, initiatives, trends and themes of green finance for SCP offered and promoted by various institutions in Asia. An emerging new theme are the circular economy which is, like SCP, based on life cycle thinking, which could also be very relevant for Sri Lanka in the promotion of green SME finance. In the following initiatives for capacity building programmes for green finance, financing women entrepreneurs, and microfinance are introduced.

3.4.1. Sustainable Banking Network

The Sustainable Banking Network (SBN) was established in 2012 and now includes regulators from 20 countries, of which 12 have launched national policies, guidelines, principles, or road maps focused on sustainable banking. SBN is convened by the International Finance Corporation and brings together banking regulators from a number of developing countries concerned with sustainable development. Members include regulators and bankers' associations from Asian countries; Bangladesh, China, Indonesia, Mongolia and Viet Nam. It demonstrates the power of peer networks to share learning and good practice among regulators, and to support domestic education for financial market actors.[34]

---

[33] UNEP-Fi (2016)
[34] UNEP-FI (2016)

3.4.2. Green financing for women entrepreneurs

The new **Women Entrepreneurs Finance Initiative (We-Fi)** was established in July 2017 during the G20 summit in Hamburg. It will enable more than $1 billion in financing to improve access to capital, provide technical assistance, and invest in projects and programs that support women and women-led SMEs in World Bank Group client countries, which includes Sri Lanka.

Although at this stage not explicitly green, it can be expected that the initiative will focus on environmentally and socially sustainable finance. The goal of the We-fi facility is to leverage donor grant funding of over $325 million and mobilize more than $1 billion in international financial institution and commercial financing, by working with financial intermediaries, funds, and other market actors, potentially through similar models as the International Finance Corporation's (IFC) Women Entrepreneurs Opportunity Facility/Banking on Women programme.[35] The United States and Germany invited the Bank Group to establish the facility. We-Fi is collaboration among the governments of Australia, Canada, China, Denmark, Germany, Japan, Netherlands, Norway, Saudi Arabia, South Korea, United Arab Emirates, United Kingdom, and the United States.[36]

3.4.3. Sustainable Finance Collective Asia

The example of the Sustainable Finance Collective Asia[37] show that green finance approaches are becoming wider, not only including renewable energy and energy efficiency, also including topics such as circular economy and positive social impact criteria, both important for SCP. For example, SFC Asia aims to support sustainable proposals that fall within the following sustainability themes.

Circular economy: an economy that is restorative and regenerative by design, and which aims to keep products, components and materials at their highest utility and value at all times. It is an alternative to a traditional linear economy (make, use, dispose), and where we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life. Funding for circular economy projects that improve resource productivity (including water, energy, and primary inputs), restorative and regenerative product, product line and supply chain designs, product life extension, sharing of products, product as a service. Funding for projects that fundamentally change supply chain from the linear to circular model i.e. by building recycling plants next to a manufacturing base to reduce primary material inputs, or projects that improve resource usage such as retrofitting of buildings or manufacturing plants.

Sustainable energy: Sustainable energy or renewable energy and energy efficiency. Flow of investments into sustainable energy accelerated due to the growing price competitiveness in the production value chains, as well as long-term certainty by policy measures and tariff

---

35 World Bank (2017) Women Entrepreneurs Finance Initiative. http://www.worldbank.org/en/programs/women-entrepreneurs

36 http://www.worldbank.org/en/programs/women-entrepreneurs#5

37 http://www.sfc-asia.com/themes

support in some jurisdictions. Proposals that support any type of sustainable / renewable energy and energy efficiency in all industrial sectors are welcome.

Social Impact: Social impact proposals generate measurable social and/or environmental impact mainly in emerging markets. These projects aim to bring about positive, meaningful changes to communities and the wellbeing of the individuals and families. Some examples of proposals may include projects that promote financial inclusion, health and wellness, minority empowerment and access to education and electricity

3.4.4. Capacity building for financial institutions (FIs)

Capacity building for FI has been recognised as an important aspect to advance green finance. To address this issue, an increasing number of international projects have been initiated. For instance, a project funded by the International Climate Initiative (IKI) "**Green Banking – Capacity Building on Green Energy and Climate Finance"** provides capacity building for bankers and other FI staff from the countries India, Indonesia, Philippines, Thailand and Vietnam. Partner institutions included are Philippines: Ministry of Energy; Indonesia: Ministry of Energy and Mineral Resources; India: Ministry of New and Renewable Energy; Vietnam: Ministry of Industry and Trade; Thailand: Ministry of Energy

The main target groups of this project are commercial and development FIs, private equity, venture capital and infrastructure funds as well as institutional investors. The target groups will gain specific know-how in RE and EE, resulting in improved risk evaluation capacities and an increased willingness to engage in green energy finance and investments. Due to its dynamic development, this region has an important role in international climate change mitigation efforts. Establishing a new accredited **training degree of a "Green Finance Specialist"** will generate a long-lasting impact on the availability of green finance. By unlocking additional finance for RE and EE the project will lead to a high leverage effect of the allocated budget.[38]

3.4.5. Microfinance Initiative for Asia (MIFA)

The Blue Orchard MIFA Fund provides loans at market rates, coupled with technical assistance, to MIFA Institutions in the SWITCH-Asia target countries, and beyond. These loans enable MIFIs to expand their credit portfolio and on-lend to local MSMEs that propose environment-related investments. MIFIs are ideal contact points for MSMEs affiliated to SWITCH-Asia projects, which are planning small investments to enhance their environmental performance.

Provide financing (senior and subordinated loans) mainly in local currency on commercial terms to Microfinance Institutions (MFIs), especially Tier 2 and Tier 3 MFIs, in emerging Asian and Central Asian markets. The objective is to strengthen financial intermediaries, encourage them to lend to micro and small enterprises and low-income households. It fosters responsible finance principles in the region and further develops local financial markets.

---

[38] International Climate Initiative (2016) Green Banking – Capacity Building on Green Banking and Climate Finance https://www.international-climate-initiative.com/en/projects/projects/details/481/

The Fund sponsors have undertaken to assign specific additional funding to financing MFIs that are already active in lending to renewable energy/energy efficiency (RE/EE) projects borne by micro-borrowers.

Examples of MFIs includes Aye Finance in India. Aye Finance has joined MIFA's portfolio in 2017. While most of MIFA portfolio in India is focusing on traditional group lending microfinance, Aye Finance offers working capital loans to SMEs, which are part of various industry clusters. Currently 40+ clusters have been identified, such as shoe making, garment-making and Kinara (corner/grocery shop). Target clients are those SMEs who on average employ ten people, and/or with annual turnover between USD 15k to USD 60k.

3.5. Green Technology Solutions and Financing for Food Processing SMEs

This section features examples of innovative technologies and equipment for SMEs working in the food processing industry. Often financial institutions are not aware of these new technologies and these are not included in loan schemes and credit lines.

The uptake of solutions that increase energy efficiency in food processing SMEs is generally low in most countries. This is due to several barriers, among which legislation, finance and other resources play a large role. SMEs, in different parts of the value chain in the food processing industry, have potentials for energy efficiency improvements, focusing on the potential reuse of waste heat. The important changes are not to be made only within the SMEs, but also through legislation that affects the financial benefits of energy improvement solutions, and through the marketing approach that solution suppliers take towards their potential customers when addressing the inherently individual needs of SMEs.[39]

3.5.1. Financing renewable energy - biomass power

Financing trends for renewable energy, in line with SCP principles and the bio economy, tend towards promoting biomass power. SMEs in food processing sectors can act as both fuel suppliers for the biomass plant and the use electricity generated by the plant for their operations.

---

39 http://www.mdpi.com/2071-1050/8/11/1152

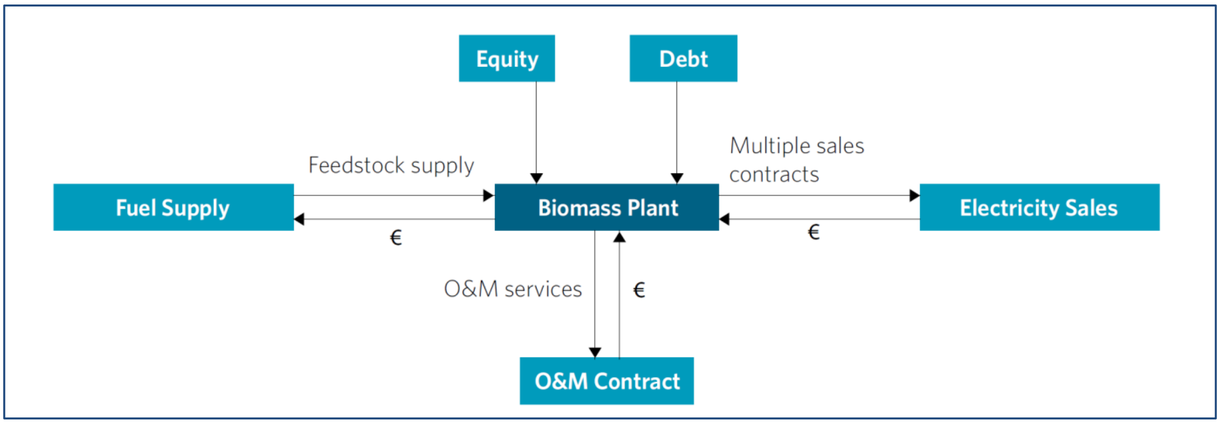

Figure 6: Financing structure of a biomass power generation plant (source Bloomberg New Energy Finance, 2016)[40]

This example of a biomass electricity generation project structure serves to highlight some of the challenges that project developers often face (not including risks linked to the sustainability of feedstock). The main issues include maintaining stable feedstock supply: if multiple contracts with suppliers are involved, the actual ability of the plant to produce the electricity at a forecast production capacity, and price, carries a greater risk.

Sales contracts: on the output side, producers will want to find sales contracts for electricity generated (e.g. power purchase agreements or PPAs) that have similar maturity or maturity that is longer than the long-term project finance debt; and to establish that the purchaser can be viewed as a reliable counterparty (creditworthy) over the expected duration of the contract (or that alternative scenarios can be assessed). This can be challenging. There is also revenue from green certificate or feed-in tariff regimes.

The economics of biomass power can be squeezed between two separate markets, which are not directly correlated – the prices for the feedstock on the commodity markets, for example, and the final product being sold in the power market.[41]

3.5.2. Green technology and finance for dairy processing industry SMEs

There are multiple green technology solutions for improving resource efficiency of dairy processing facilities. For instance, retrofitting existing diesel-powered cooling units with solar PV units and building new collection centres incorporating renewable energy sources. Solar PV power offers an opportunity to decrease costs of milk collection and cooling, and increase reliability of power supply. A pilot project in Bangladesh was funded by the Renewable Energy and Energy Efficiency Partnership (REEEP).[42]

---

40 Bloomberg New Energy Finance (2016) *Finance guide for policy-makers: Renewable energy, green infrastructure.* Bloomberg New Energy Finance, Chatham House, UNEP Collaborating Centre for Climate & Sustainable Energy Finance, Frankfurt School and Low Carbon Finance Group, August 2016.

41 Ibid.

42 REEEP (no date) https://www.reeep.org/projects/solar-powered-dairy-refrigeration-bangladesh-enerplus

An EU-funded project SUSMILK[43] promotes green technology solutions for the dairy processing sector. The three main green technology solutions for dairy processing SMEs are for heating and cooling technologies, closing loops in terms of waste treatment/recycling and wastewater and whey treatment technologies. Estimates of direct positive impact for dairy processors are 15% saving in energy expenses. Other benefits include stable power supply, stable energy price, increased milk collection, opportunity to expand milk collection to off-grid region and better milk quality. Supply of heat and electricity can be carried out by cogeneration, heat pumps, solar heat, and biogas produced on-site or other renewable fuels (from dairy wastes). Cooling will be supplied by a new absorption chiller that uses solar or waste heat. The implementation of these adapted technologies for dairies will significantly reduce the use of steam as heat transfer medium. The transfer media hot water and ice water will not change the central processes (e.g. fermentation or separation) that convert raw materials or intermediate products.

3.5.3. Green technology and finance for the rice milling sector

The hot spot for energy consumption in the rice processing sector is the paddy drying process. To achieve quick energy efficiency improvements, improvements in this stage of the process are recommended.

43 Susmilk website: https://www.susmilk.com/

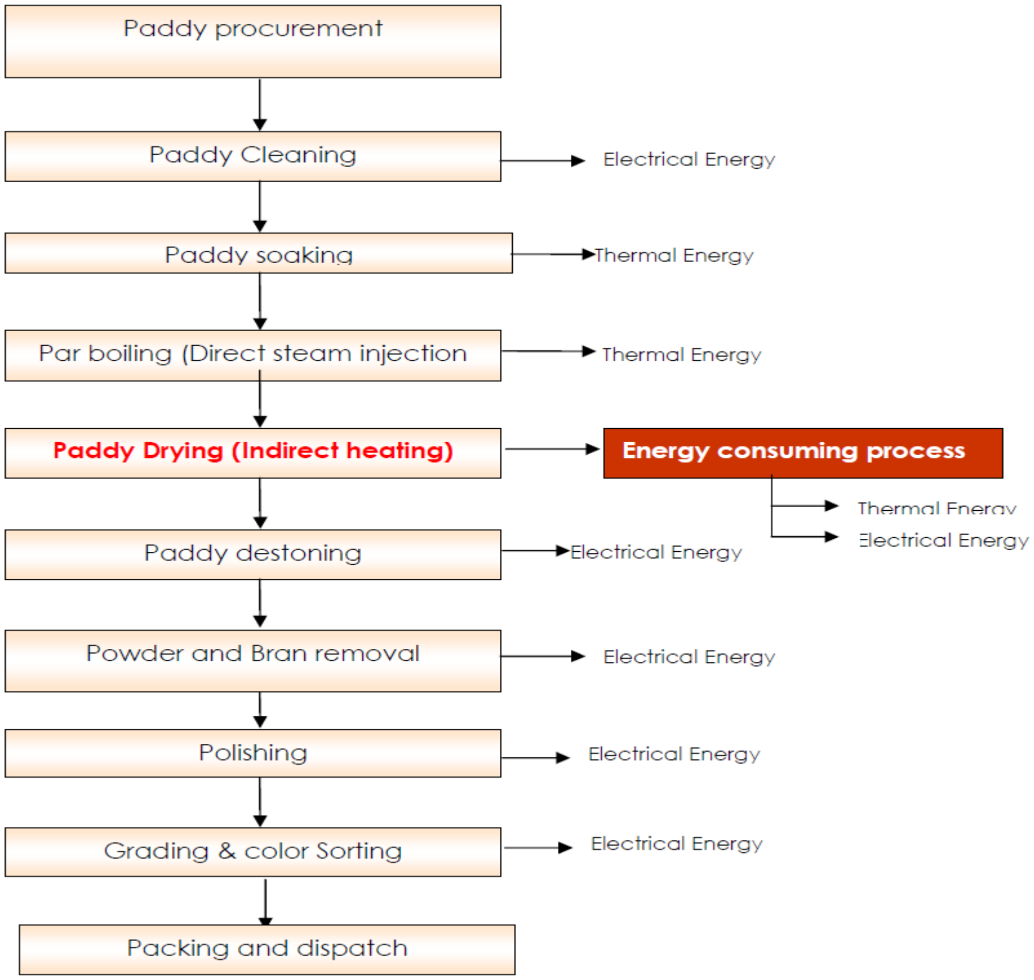

Figure 7: Rice milling process flowchart and energy saving potentials (Source: REEEP Toolkits)[44]

An example from the SWITCH-Asia Programme in the rice milling sector[45] is rice husk gasification (RHG) technology promotion in Cambodia. The project achieved potential fuel savings of 65%, through RHG technology application, with diesel offset equal to USD 2 340/month (EUR 2 000 /month). At diesel's price of EUR 0.78/litre, a rice mill is able to save EUR 43 200 per annum. Reduced energy consumption by 65% by offsetting diesel as fuel in rice mill production with the energy produced by rice husk gasifier. The project engaged with the investor (Nexus for Development) for RHG technology (one investment came through shortly after the project's completion). The revolving fund was designed to facilitate millers in order to create energy switch and the fund allocation is between USD 25,000 – 75,000 (EUR 22,500 – 67,500) depending upon the successful due diligence. Leveraged green finance for SMEs in a form of seed funding of USD 450,000 (EUR 405,000) from Nexus for Development. Nexus for Development has established the Clean Energy Revolving Fund

---

[44] Energy Efficiency Best Practices Handbook for SMEs - REEEP Toolkits toolkits.reeep.org/file upload/12450_tmpphpfOD1zf.pdf

[45] http://www.switch-asia.eu/publications/sustainable-biomass-technology-enhances-cambodias-rice-milling-sector/

(CERF)[46] which helps Cambodian farmers in different segments of the agrifood sector invest in small-scale RE solutions by offering affordable, unsecured finance in amounts suitable for SME-level operators (USD 10,000 to 100,000). The loans are issued following an intensive due diligence process which Cambodian banks would be unwilling to undertake for small-size loans. The Fund's impact therefore lies in financing agricultural enterprises to become more energy efficient and/or harness RE without requiring collateral, through a relationship banking model. The Fund's demonstration effect creates the potential to crowd in other financiers with appropriate products and structures. It may also provide the basis for replication of the CERF model, modified as necessary, in neighbouring countries (possibly also Sri Lanka).

3.5.4. Environmentally sound technologies and practices for tea processing SMEs

Firewood is frequently used in India and Sri Lanka for tea drying processes. Green finance can be used to provide funds to SMEs in the tea processing sector to make the following technological upgrades, mainly fuel switching and energy efficiency and waste heat recovery:[47]

1. Fuel modifications: Briquettes and biomass wastes

2. Use of air pollution control devices

3. Waste heat recovery from dryers cum heaters, fuel gas heat can be used for preheating the intake air by using economizers

4. Recirculation of exhaust gases

5. Fuel efficient air heaters

6. Use of renewable energy

According to Unilever's Sustainable Agriculture Advisory Board (SAAB), resource efficiency in the tea processing practices can be improved by:

* Boiler, tea dryer and factory efficiency should be optimised. Invest in more efficient boilers if necessary.

* Biofuels derived from waste (e.g. bio-briquettes and sugarcane bagasse) should be considered to supplement fuel wood use.

* All fuel wood/wood chips must be derived from sustainable sources. Smaller farms and processing SMEs should seek to develop co-operative fuel wood growing schemes given their own landholding constraints.

---

46 https://www.reeep.org/projects/innovative-clean-energy-finance-cambodian-farmers-nexus

47 Baruah, B.P., Khate, P. and Rao, P. (2012) The energy utilization pattern in tea industries of NE India and environmental issues. Two and a Bud 59 (2) 9-13, 2012

* Tea bush pruning's should be left as a mulch in the field and never use for fuel.
* Minimise factory process water use (e.g. recycling steam condensate, dry cleaning of factory lines).

4. CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

The overall conclusion of the reports, interviews and stakeholder consultation shows that Sri Lanka has many options to promote green finance for SMEs in the sectors of diary, tea and rice processing. In order to catch up with other countries in Asia and capture the opportunities green finance has to offer for SME development and increasing competitiveness, the following recommendations are being made.

Recommendations for immediate use for the Sri Lankan Budget 2018 to kick-start green SME finance:

* **Initiative compulsory green lending by Licensed Commercial Banks (LCBs) or Non-Banking Financial Institutes ((NBFIs) under the supervision of CBSL of between 5-10% of the banks' portfolio** and interest earned to be tax exempted (Corporate Tax) to PCIs on this portfolio.
* **Provide tax benefits to SME borrowers to procure high tech machinery, energy efficient solutions such as capacitor banks, variable speed motors, automation of processes for higher output with minimum time and waste.** This will encourage the private sector embracing green finance and come within the tax net (tax loss revenue to government is compensated by way of reduced consumption, reduced imports of fossil fuels, etc.). Expert intervention will be required to design business models and find the EIRR.
* **Provide VAT or Custom Duty refund (to the end user, not to the importer) together with the point discussed above to be provided only after installation and certification of green technology by an independent party. This applies to an industry sector which widely uses mundane technologies to revamp the whole industry of chosen sectors to the latest available technologies, such as tea factories, milk chilling centers and rice mills** (Project Completion or Machinery / equipment installation or starts commercial operations). This will ensure post monitoring requirement of a benefit given. If the VAT & Duty benefit is given to the importer under HS Codes, desired objective will not be achieved since this equipment can be used for other industries/purposes as well. Resulting in a loss of revenue to the government. Hence, offer the benefit only to the investor on submission of completion report.
* **Set up a credit guarantee scheme for SMEs where collateral is not a requirement provided the project meets a set criterion predetermined** and the sheer economic viability of the project and cash-flows is factored. Credit extended under this credit guarantee scheme should be treated as equivalent to a facility given under a Treasury Guarantee, which do not require CAR allocation under Basel III and approved by the Central Bank of Sri Lanka.
* **Prepare issuance of Sri Lankan Green Bonds**, thereby following the examples and experiences of other countries in Asia to attract international investors. Bonds can be issued by the State or by the LCBs. If the LCBs issue bonds by collateralizing an existing SCP compliant credit/asset portfolio, these bonds should be considered as part

of Tier II capital. In addition to renewable energy projects, SME energy efficiency and biomass energy projects can be included in Sri Lankan green bonds.

Recommendations for further development of Sri Lanka's green finance system:

* **On boarding LFCs to be a PCI to reach mass market** since LFCs also listed with transparent accounting practices whilst being listed in the Colombo Stock Exchange. They take relatively higher level of risks.
* **Raising SCP linked securitized debt to represent part of the Tier II capital**. PCIs will be encouraged to bundle SCP related credit and transfer it to a Special Purpose Vehicle to be sold. These securitized Green Debt instruments will attract foreign funds at a cheaper price.
* **Switch to Green tax credits system instead of interest subsidies,** which ensure the project had achieved desired objectives and a post audit being carried out
* **Capacity building programme for financial institute (FI) staff** on green finance and/or Green Business Modeling. Joining existing and new regional green finance capacity building programmes.
* **Development of guidelines for assessment of environment, social and governance (ESG) risks**. Many countries are combining risk management guidelines with public financing initiatives that seek to provide a demonstration effect for the financing of green projects and technologies, lowering their perceived risk. We recommend Sri Lanka to develop national guidelines along these lines.
* **Establishment of open access and transparent national green finance database** (based on existing CRIB database). Single point of monitoring to eliminate the possibility that the same project would be funded by two or more green finance schemes
* **Design and use an SCP scoring template at the time of appraising the credit evaluation.** Based on the scoring, the entitlement of SMEs for tax reduction can be assessed.

4.1. Way forward for Green Finance in Sri Lanka

The research of the experts and discussions of the workshop participants highlighted the need for a national coordination mechanism on green finance. We therefore recommend the establishment of a national multi-stakeholder and inter-ministerial **Green Finance Steering Group or Platform**, including Ministry of Finance, Ministry of Mahaweli Development and Environment, Sri Lanka Central Bank, and other important stakeholders.

Short-term actions to be taken by Green Finance Steering Group to kick-start Sri Lankan green finance:

* Develop Sri Lanka national green finance plan or roadmap (linked to national SCP policy development), joining the efforts already undertaken by the Sri Lanka Central Bank and UNESCAP
* Broader scope and another mission cutting across all industries will be required to establish the National SCP policies
* Apply a balanced "carrot and stick" approach by government (a combination of green financial incentives and environmental regulations) which will encourage resource efficiency and discourage pollution and waste
* Prepare issuance of Sri Lankan Green Bonds
* Implement credit guarantee scheme where PCIs do not require CAR allocation and compulsory green lending requirements
* Development of national ESG risk guidelines
* Establish green SME investment facility with international donors

Medium to long-term objectives and actions to be taken by Green Finance Steering Group:

* Use green finance instruments to strengthen competitiveness of Sri Lankan SMEs and national economy
* Move from single green finance policies to national green finance system
* Introduce SCP as part of School/University curriculum on economics and finance related studies.
* Use the green initiatives in the financial marketing materials and charge a premium price

Disclaimer: This report is prepared under a limited scope for Tea, Rice and Dairy production based SP. SCP applies to all touch points in a production process, meaning downstream from extraction of raw material and upstream processes until the final consumption is made and recycled. Furthermore, from an industry to industry SCP initiatives and what motivates them are different. Licensing, certifications and trade barriers have not been looked at. Hence, application of the above recommendations across all industries may require different treatment or adjustments. Given the limitations of the mission time lines, resources and scope, a broader mission will be required to understand how SCP will work for all industries analysed individually. Hence, application of this report findings and recommendations should not be taken on the face of it for comprehensive strategy formulation for the country across all industries.

5. Appendix 1 - Financial Schemes Available in Sri Lanka as of Aug 2017

Scheme Name	APEX Body	Benefit (Interest p.a.)	TEA	DAIRY	RICE
SMILE III	MoIC (Refinanced)	8% - Proj, 5% - Tech	Yes	Yes	Yes
RiviBalaSavi	MoFP (50% int subsidy)	6% (Households)	No	No	No
JayaIsura 1,2	MoFP (50% or 25% Sub)	AWPLR + 1.2% - 50%	Yes	Yes	Yes
RanAswenna Cat 1,2,3	MoFP (50% int subsidy)	AWPLR + 1.2% - 50%	Yes	Yes	Yes
GoviNavoda	CBSL (50% int subsidy)	AWPLR + 1.2% - 50%	No	Yes	Yes
SMSE LOC	MoFP (Refinanced)	Market Rates	Yes	Yes	Yes
Sarusara	CBSL (Refinanced)	7%	No	No	Yes
Saubagya	CBSL (Refinanced)	8%	Yes	Yes	Yes
CSDDLS	CBSL (Refinanced)	8%	No	Yes	No
Dasuna	CBSL (Refinanced)	10.5%	Yes	Yes	Yes
DEG-NDB w		10%	Yes	Yes	Yes
EIB	DFCC	8% (LKR) 5% (USD)	Yes	Yes	Yes
Sahaya - Self employment	DFCC (Site)	5.5%	No	No	No

6. Appendix 2 - Itinerary and Persons Met

Whilst the foreign expert did the initial fact-findings related to SCP from the global perspective, the local expert carried out secondary data analysis and interviews with some of the key stakeholders as per details given below.

Date	Time	Persons met	Activity
22 August 2017	09:00 – 10:30	Mr. Victor Anthonypillai Country Officer – Sri Lanka and Maldives, IFS vantonypillai@ifc.org Tel: +94115400114	Understanding from the point of view of a multilateral funding source for the development of SME and effectiveness of the financial products on offer currently in Sri Lanka and in Asia
22 August 2017	11:30 – 13:00	Mr. Nalin Karunathilake Vice President – DFCC Bank PLC Nalin.karunathileka@dfccbank.com Tel: +94112442232	Understanding from an APEX body as well as end user of dedicated funds, what challenges they face and how to overcome
22 August 2017	15:00 – 16:30	Mr. Indika Ranaweera Asst.Vice President – NDB Bank PLC Indika.ranaweera@ndbbank.com Tel: +94112369323	Understanding from a former APEX body, users of funds for inward lending and what works with SME
24 August 2017	08:30 – 10:00	MS. Deepika Navarathna Senior Manager – Lankaputhra Development Bank deepikan@lankaputhra.lk Tel: +94112821030	Understanding of how SME and MSME embrace SCP and what works with them
24 August 2017	10:45 – 12:15	Mr. Jitendra Gajendran Director – Gajma & Co Chartered Accountants gajma@gajmasl.com Tel: +94112597898	Understanding of accounting benefits after implementation and usage of taxation for the benefit of achieving SCP objectives
24 August 2017	12:30 – 14:30	Mr. Kapila Deshapriya Senior Manager, Refinance – NDB Bank PLC Kapila.deshapriya@ndbbank.com Tel: +94112448448	Understanding of the challenges faced by the Banks in disbursing of funds and effectiveness of the benefits offered to SME. Post disbursement evaluation

			methods.
25 August 2017	09:00 – 10:30	Mr. Palitha Bandara Focal Point, Natural Resources and Environment, Sri Lanka Resident Mission – ADB kbandara@adb.org Tel: +94114455454	Understanding of a multilateral agency perspective in supporting SCP at policy implementation level
25 August 2017	11:00 – 12:30	Mr. Majula Hettiarachchi Director – Department of Development Finance, Ministry of Finance & Planning, Sri Lanka manjulap@dfd.treasury.gov.lk Tel: +94112484596	Understanding of the policy makers of the country and the objective of dedicated schemes to SMEs and effectiveness
25 August 2017	15:00 – 16:30	Mr. Manamendra and Ms. Shanika Ministry of Industry and Commerce pmu116mic@gmail.com Tel: +94112390142	Understanding of the policy makers of the country and the objective of dedicated schemes to SMEs and effectiveness
12 September 2017	10:00 – 12:30	Mr. Hasitha Wijesundera Advisor – SME Development – GIZ hasitha.wijesundara@giz.de Tel: +94114963773	Understanding of a multilateral agency perspective in supporting SCP at policy implementation level
14 September 2017	10:00 – 12:00	Mr. Ranga Pallawala CEO – Janathakshan (Gte) Limited ranga@janathakshan.lk Tel: +94112829412	Understanding of a service provider in embracing SCP

Workshop Participants' Recommandations :

In addition to the expert recommendations, the workshop participants provided the following recommendations :

* Improve coordination among policymakers, service providers, banks and agencies (key players)
* Formation of central authority (coordination unit) to evaluate and monitoring green finance projects, coordinate other stakeholders
* Rearranging fiscal policies, e.g. water efficiency not encouraged
* "Carrot and stick" approach by government (incentives and regulations)
* Regulations for resource efficiency and pollution prevention
* Allocate an X percentage of loans for green financing project from banks
* Refinancing of SCP finance schemes, low cost credit facilities
* Creation of awareness (and capacity) of SMEs and banks, address information gap, in schools and society
* List of green technologies for priority funding and eliminate ambiguity of the entitlement
* Facilitating testing/technical services
* Grading system for SMEs (certification, star rating) & reward mechanisms (e.g. tax benefits, better rates)

Annex 3

Operationalization / Implementation of Recommendations

Recommendation 1: **Initiative compulsory green lending by Licensed Commercial Banks (LCBs) or Non-Banking Financial Institutes (NBFIs) under the supervision of CBSL of between 5-10% of the banks' portfolio** and interest earned to be tax exempted (Corporate Tax) to PCIs on this portfolio.

Key Actions	Responsible Agency	Proposed Time Frame	Expected Results	
			Output	**Outcome**
Clear the definition of GREEN FINANCING based on internationally used definitions to align with international initiatives on green finance	Driver of the GREEN (SCP) initiatives in SL, & CBSL / MoMDE	2 Months	Clear guide lines to the CBSL and Financing Institutes	Focus attention by the Financial System to encourage SCP
Agree on the SCP entitled credit facility type and eligibility criterion	CBSL / MOFP / IRD / Bankers Association/ MoMDE	4 Months	Minimum and maximum entitlement for financiers and how the interest earned be exempted by the corporate taxation	Financiers are motivated and incentivised to achieve the country goals.
Market awareness	CBSL / Bankers	On going after the 6th	Businesses to obtain loans	Scarce resources saving,

campaign to bring the participants (SMEs and local commercial banks) to embrace SCP	Association/ MoMDE/Chambers	month. Have a promotion/advertising plan	for productivity improvement, waste minimization, energy saving, quality improvement, get new technologies, etc...	product/service quality improvement, in par with latest developed technologies
Continuous monitoring and evaluation, including environmental performance of companies	CBSL/MoMDE	Every year once the scheme was initiated	Align and realign the objectives to be achieved	Show the cost / benefits analysis of the initiative in the upcoming budget. Tax compromised, but value added to the economy

Recommendation 2: **Provide VAT or Custom Duty refund (to the end user, not to the importer) together with the point discussed above to be provided only after installation and certification of green technology by an independent party. This applies to an industry sector, which widely uses mundane technologies to revamp the whole industry of chosen sector to the latest available technologies, in particular tea factories, milk chilling centres and rice mills**

Key Actions	**Responsible Agency**	**Proposed Time Frame**	**Expected Results**	
			Output	**Outcome**
Identifying industry wide SCP initiatives and gathering what goes in to achieving same (investments)	Specific Chambers or Ministries / MoMDE	4 months	How to achieve SCP for the benefit of the investor as well as for the country	Optimum operational business model being shared with the specific industry participants/players

Agree with IRD / MOFP how the benefits accrue and methodology of VAT/Duty refund basis on completion of the projects of entrepreneurs	Ministries / MoMDE/ IRD/ MOFP/ Customs/ Chambers	4 months (Depends whether a simple Gazette or Parliament has to approve)	List of activities/projects are entitled for the benefit, including the environmental benefits of these activities	Clear guidance to the Business Community
Market awareness campaign to bring the participants to embrace SCP and obtain the benefit after implementation	Ministries / MoMDE/ Chambers	On going after the 8th month. Have a promotion/advertising plan	Businesses to obtain VAT/Duty benefit for productivity improvement, waste minimization, energy saving, quality improvement, get new technologies, etc..	Scarce resources saving, product/service quality improvement, in par with latest developed technologies
Continuous Monitoring and evaluation	Ministries/MoMDE	On going after the 8th month onwards	Align and realign the objectives to be achieved	Show the cost / benefits analysis of the initiative in the upcoming budget. Tax compromised, but value added to the economy

Recommendation 3: **Set up a credit guarantee scheme for SMEs where collateral is not a requirement provided the project meets a set criterion predetermined**

Key Actions	Responsible Agency	Proposed Time Frame	Expected Results	
			Output	Outcome
Build an organization and a fund out of corporate tax collected from the companies above 1.0Bn turnover. Set aside 1% of the collection for this purpose. (No extra tax to companies, but out of what they pay is set aside by the Government for this fund)	MoFP / Ministries/ Chambers/ IRD/ MoMDE / Bankers Association/CBSL	6 months	Seed capital and continuous building up of the fund	Entrepreneurs with innovative/feasible projects will be funded by the banking system with proper evaluation criterion. Any future doubtful credit situation will be sorted by this Credit Guarantee Scheme for the differential of realizable assets and the clean exposure
Set up the company by guarantee	MoFP / MoMDE / Bankers Association/CBSL	2 months	Company objectives, Vision, Mission, Goals are to be set, green funding criteria developed	Building sustainable entrepreneurship in the country
Function the company	MoFP / MoMDE / Bankers Association/CBSL	8th month onwards	Banks to fund businesses which meets the funding criterion and take on technically/financially feasible projects that the promoters do not have assets to back other than the Subject Project Assets	Employment generation (green jobs), new ventures, new products & services, bring out the innovation of the country men and women.

			and personal guarantee	

Recommendation 4: **Prepare issuance of Sri Lankan Green Bonds**

Key Actions	**Responsible Agency**	**Proposed Time Frame**	**Expected Results**	
			Output	**Outcome**
Identify what the global requirement/eligibility criterion to contribute for Green Bonds and align with international best practices	MoMDE/CBSL/MoFP	4 Months	Understanding of the global funds/countries who contribute to Green Bonds of this nature	Target Marketing when Bonds are floated
Buy the green credit facilities from the Financial Sector participants based on the above understanding and place them on a Special Purpose Vehicle (SPV)	MoMDE/CBSL/MoFP/ CBSL/ Bankers Association/ Global Trustee Bank	4 Months	Tradable Asset Portfolio. SPV should be a private company jointly owned by the Financial Sector	Generate money to the Country at a much cheaper rate than the Sovereign rate
Arrange credible independent review and verification of green	MoMDE and Climate Bonds approved verifiers		verifiers have identified and verified green assets	Verified green assets are issued as green bonds

assets projects				
Carry out global promotions and target market the funds/countries who wish to fund these bonds by eliminating the intermediaries, who keep another profit margin.	MoMDE/CBSL/MoFP/ CBSL/ Bankers Association/ Global Trustee Bank	5 Months for an issue	Long Term Borrowing at the lowest interest rate possible	Generate much needed foreign forex to the country (Must be caution of the Forex Risk Management Tactics)