BIOFIN

Biodiversity Finance Initiative, Sri Lanka

**BIODIVERSITY FINANCE PLAN**

**2018 - 2024**

The Ministry of Finance and Media

The Ministry of National Policies and Economic Affairs

The Ministry of Mahaweli Development and Environment

The Government of Sri Lanka

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Biodiversity Finance Plan (BFP) is the final document of the BIOFIN process in Sri Lanka which commenced two years ago. The BFP was guided by four documents prepared by the BIOFIN team of the UNDP during the BIOFIN process: Inception Report, Policy and Institutional Review (PIR), Biodiversity Expenditure Review (BER) and, Financial Needs Assessment (FNA).

The BFP was prepared by the BIOFIN Sri Lanka team led by Professor Sirimal Abeyratne. The contributions to prepare the finance solutions were made by the following team of experts: Prof. K. Amirthalingam, Dr. Sahan Dissanayake, Mr. Eranda Gamage, Mr. M.S.A. Mubarak, Mr. Ranga Pallawala, Ms. Dinushka Peiris, Mr. Adeesha Perera, Ms. Rajeeka Ranathunge, Mr. Yohan Samarathunge, Dr. Lakmini Senadeera, Ms. Yashoda Senadeera, Mr. Gamini Senanayake, Mr. Shamen Vidanage and, Mr. Ramitha Wijethunga.

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#### ABREVIATIONS & ACRONYMS

|  |  |
| --- | --- |
| ADB | Asian Development Bank |
| BER | Biodiversity Expenditure Review |
| BFP | Biodiversity Finance Plan |
| BIOFIN | Biodiversity Finance Initiative |
| CBSL | Central Bank of Sri Lanka |
| CEB | Ceylon Electricity Board |
| CSR | Corporate Social Responsibility |
| DCC | Department of Coast Conservation and Coastal Resource Management |
| DLB | Development Lotteries Board |
| DMT | Department of Motor Traffic |
| DWC | Department of Wildlife Conservation |
| EIA | Environmental Impact Assessment |
| FD | Forest Department |
| FNA | Financial Needs Assessment |
| IFC | International Finance Corporation |
| IUCN | International Union for Conservation of Nature |
| LKR | Sri Lanka Rupees |
| MF | Ministry of Finance |
| MHP | Mini-Hydro Power |
| MLGPC | Ministry of Local Governments and Provincial Councils |
| MMDE | Ministry of Mahaweli Development and Environment |
| MPRE | Ministry of Power and Renewable Energy |
| MT | Ministry of Tourism |
| MTCA | Ministry of Transport and Civil Aviation |
| NAP-CCI | National Adaptation Plan for Climate Change Impact 2016-2025 |
| NAP-CLD | National Action Program for Combating Land Degradation 2015-2024 |
| NBSAP | National Biodiversity Strategic Action Plan 2016-2022 |
| NLB | National Lotteries Board |
| NRIFAP | National REDD+ Investment Framework and Action Plan 2018-2022 |
| PES | Payment for Ecosystems Services |
| PIR | Policy and Institutional Review |
| PPPs | Private Power Producers |
| PUCSL | Public Utility Commission of Sri Lanka |
| SBN | Sustainable Banking Network |
| SC | Steering Committee |
| SCP | Sustainable Consumption and Production |
| SLTDA | Sri Lanka Tourism Development Authority |
| SOE | State-Owned Enterprise |
| SST | Sustainable Standards and Certification |
| TAC | Technical Advisory Committee |
| TC | Technical Committee |

# INTRODUCTION

The Biodiversity Finance Plan (BFP) of Sri Lanka presents a detailed and prioritized set of multiple finance solutions with a seven-year implementation time horizon (2018 - 2024). The Plan intends to support sustainable biodiversity management effort of Sri Lanka by mobilizing finance for investing in biodiversity.

Biodiversity management involves conservation and promotion of biodiversity as well as its sustainable and equitable use for the benefit of the nation. Mobilization of finance resources means the additional amount of finance needed by Sri Lanka above what is currently spent on biodiversity and environment related activities. The strategy also recognizes diversifying sources of finance to involve both the public and private sector as well as core and non-core biodiversity institutions. The finance solutions listed in the Plan are concerned with four types of resource mobilization strategies: generating finances through new sources, realigning the existing expenditure, avoiding future expenditure and, delivering better outcomes with existing expenditure.

### Aims and Objectives of the Plan

The BFP is aimed at presenting Sri Lanka’s national approach to biodiversity financing through the development of priority finance solutions. It is presented as a coherent and comprehensive approach with an active engagement by the stakeholders representing the government, private sector, and the civil society. The plan is expected to expand and improve biodiversity finance in Sri Lanka thereby achieving the national biodiversity targets.

The specific objectives of the Plan are as follows:

1. To prioritize and optimize a final list of finance solutions, by carrying out an analysis of available and potential finance solutions
2. To present financial needs, biodiversity targets and strategies that can be linked to the prioritized finance solutions
3. To provide technical proposals to operationalize the prioritized biodiversity finance solutions
4. To present a clear business case with an economic rationale for investing in biodiversity to foster the implementation of the Plan.
5. To provide broad implementing guidelines by identifying a time frame, milestones and responsibilities.

### BIOFIN Process

The BFP draws on three technical reports on biodiversity finance which were completed in early 2018 and were guided by the BIOFIN Methodology:

**Policy and Institutional Review (PIR)** that presented an analysis of Sri Lanka’s biodiversity-related policies and institutions with an assessment of the implications of their roles and responsibilities in biodiversity management.

**Biodiversity Expenditure Review (BER)** provided an analysis on the country’s current expenditure of which by purpose or by implication there was a positive impact on biodiversity, including direct and indirect expenditures, and any reduction or elimination of pressure on biodiversity.

**Financial Needs Assessment (FNA)** provided a quantified financial requirement for the implementation of the biodiversity strategies of Sri Lanka, in addition to the current biodiversity expenditure.

According to the PIR, Sri Lanka has a comprehensive legal and sectoral policy and institutional framework in place to address the issue of sustainable biodiversity management. Nevertheless, efficient and effective implementation of policies for biodiversity management appears to have been constrained primarily by the limited institutional capacity and narrow fiscal space.

Fiscal management of the government of Sri Lanka has fundamental weaknesses that has gradually led to a significant contraction in fiscal space over time. Firstly, there has been a steady decline in tax revenue as a percentage of GDP over the past 25 years from about 19% of GDP in 1990 to 10% in 2014. It remained 11.6% of GDP in 2016 and estimated to be 13.5% of GDP in the current budget. This improvement depends largely on the efficiency of revenue collection – particularly with respect to income tax collection in the medium term.

Secondly, the direct and indirect tax composition is unusually distorted and does not fall in line with a tax composition of an emerging middle-income country. The income tax share remains as small as 16.5% of total tax revenue as of 2016, indicating the government’s tax revenue is generated largely from indirect taxes. In an efficient and fair taxation system, direct tax component should rise relieving indirect tax burden.

Thirdly, over a long period of time recurrent expenditure remained above the tax revenue as well as above total government revenue, resulting in a revenue deficit. In other words, revenue deficit means that the total amount of public investment *plus* part of the recurrent expenditure has to be financed by borrowings.

Fourthly, outstanding public debt as of now amounts to over LKR 10,000 billion or about 75% of GDP. What is disturbing is, however, not the debt-GDP ratio, but the annual debt service payment which is nearly the same as government’s tax revenue; in 2016, debt service payment was LKR 1,349 billion, while government’s tax revenue was LKR 1,432 billion. In other words, this means that borrowing has become unavoidable to sustain annual debt service payment.

The fundamental weaknesses of fiscal management reflects a rather narrow fiscal space within government budget to generate extra funds for any financing gaps in biodiversity. In fact, as fiscal space become tight it is naturally the less-sensitive expenditure allocations that become the target for saving much needed funds for more-sensitive spending. More than two-third of recurrent expenditure in the budget accounts for salaries and wages, and interest payments, which cannot be slashed. Inadequate financing has been pointed out as one of the major constraint in biodiversity initiatives in *NBSAP 2016-2022* (BDS, 2016). The narrow fiscal space of the government shows that improvements in budgetary operations is required in order to face the challenges of biodiversity finance.

A second area of biodiversity financing issues is likely to be the rather complex institutional mechanisms and related regulatory barriers. As it appears that such a system might have resulted in expenditure inefficiencies. The streamlining of the institutional mechanisms would be another area that needs to be focused on improving the efficiency and effectiveness of biodiversity financing.

A third area of biodiversity financing that presents an opportunity is the expansion of space for the corporate sector to play a major role on its own as well as in partnership with the government agencies. The corporate sector has already initiated stepping into the area of biodiversity conservation as part of its core businesses without any government incentive. Therefore, it is necessary to make an assessment of the magnitude of biodiversity financing by the corporate sector and take measures to capitalize on this initiative.

As the PIR further elaborates, Sri Lanka seeks to further liberalize and globalize the economy and contain the budget deficit and public debt on a sustained path of fiscal consolidation, to achieve macroeconomic stability in the country. Further, Sri Lanka’s fiscal policy structure has focused in the past primarily on managing the private goods market and the public service sector and this continues. There are hardly any fiscal policies to regulate public goods, where open market forces do not operate, such as forests, water, watersheds, soil, coastal areas, etc. As such, these valuable ecosystem services offered freely to the public are often unrecognized.

The BER shows that direct and indirect biodiversity expenditure of Sri Lanka has remained around 0.2 - 0.3 of annual government expenditure and, less than 0.1 percent of GDP during the period 2010 - 2015. As an absolute amount, it was about LKR 7 billion as spent in 2015. While there is no record of sub-national spending on biodiversity, data on corporate spending is not reported. According to the FNA, the cumulative financial requirement over the seven-year time horizon (2018-2024) is estimated to be LKR 30.7 billion for the implementation of actions for achieving national biodiversity targets.

The BFP is prepared by taking into consideration the issues related to the country’s policy and institutional framework, the narrow fiscal space of the government and, the specific requirements of the biodiversity financial needs of the country.

### Methodology

The final list of finance solutions were selected, analyzed and prioritized through a participatory approach involving technical experts from the government, private sector and, civil society. The analysis was carried out by the experts and the BIOFIN Team at a two-day Workshop - Expert Consultative Meeting, held on 20-21 March 2018 (Annex). For this purpose the finance solutions from among the BIOFIN Finance Solutions Catalogue (the Catalogue) and the data tool were used.

The methodology for preparing the prioritized list of finance solutions consisted of following steps:

**Step 1**: Technical experts analyzed each of the finance solutions listed in the Catalogue and short listed the appropriate and feasible options for Sri Lanka’s national approach to biodiversity financing. Both lists - the comprehensive Catalogue and the short list, were examined by the participants at the Workshop who finalized a short list comprising 46 solutions out of over 100 in the Catalogue.

**Step 2**: Rapid and Detailed screening process was carried out at two stages in order to scrutinize and select the prioritized list of finance solutions.

(2A) In the Rapid screening process, as in the given data tool, each finance solution was assessed on the basis of four straightforward criteria: (a) Potential for biodiversity impact, (b) Scale of financial opportunity, (c) Political feasibility and likelihood of success and, (d) Estimated timeline for deployment. The Rapid screening process produced a list of finance solutions that are deemed “realistic”.

(2B) The Detailed screening process is a thorough review process through which each of the finance solutions was reviewed on the basis of the answers to a set of given questions in the data tool. The sum of the scores for each finance solution provided a benchmark for prioritizing and choosing the final set of finance solutions for the Plan. With the completion of both Rapid and Detailed screening process, thus 16 finance solutions were prioritized and chosen.

**Step 3**: The mix of prioritized finance solutions were further assessed by the BIOFIN Team with necessary consultations as a “robust” package of solutions for the medium-term plan horizon. This assessment was based on an examination of each solution according to a set of guidelines proposed in the BIOFIN Workbook as well as country-specific guidelines that were highlighted in the study reports of the BIOFIN process - PIR, BER and, FNA:

(3A) BIOFIN Workbook 2016 (p.227) proposes (a) financial adequacy of resource mobilization, (b) diversity of solutions by maximizing the width and depth of impact and minimizing the risks of failures, (c) appropriate planning sequence within the given medium-term plan horizon and, (d) contribution by the solutions to sustainable development goals (SDGs).

(3B) Country-specific criteria included the (a) nature and magnitude of biodiversity-related issues directly addressed by the solutions, (b) interdependence among the mix of solutions that reinforces each other, (c) sensitivity to the policy and institutional issues and, (d) biodiversity-related issues that are emphasized in the national and sectoral policy documents.

The robustness of the package of solutions based on above two levels of criteria is considered to be important in producing the desired outputs and outcomes by implementing the finance solutions efficiently and effectively within the given plan horizon.

**Step 4**: The technical experts from both the government and private agencies who attended the Workshop also prepared the technical proposals for prioritized finance solutions. These draft proposals were screened and improved by the BIOFIN Team and used as inputs to this report. Technical Proposals for each of the prioritized finance solutions are enclosed in the Annexure.

Finally, all the finance solutions were reviewed thoroughly in order to identify the most appropriate implementable mix of prioritized solutions. At this point of screening, multiple projects were planned under some of the finance solutions. In addition, some of the solutions that were selected at initial steps were not brought into the planning process mainly due to the lack of adequate information for their planning and successful implementation.

# THE PLAN

## 1. Vision

The vision of the Biodiversity Finance Plan (BFP) is to establish mechanisms ensuring finance results for sustainable biodiversity management of Sri Lanka. These mechanisms are expected to generate adequate finances to fill current biodiversity financing gaps through diversified financing sources. It is also expected to relieve the fiscal burden of government in financing biodiversity by recognizing the role of a broader spectrum of stakeholders including the private sector.

The Plan will propose a set of prioritized finance solutions for improved investment in biodiversity through a combination of scaling-up and enhancement of existing finance solutions and the introduction of new and innovative solutions. The systems and structures that are designed to operationalize these solutions together with those that are already in place will be the mechanisms of generating finance results for biodiversity management.

### Vision, contributing to the nation

Sri Lanka is committed to conserve its biodiversity and to ensure its sustainable and equitable use for the benefit of the nation. This commitment at national level is expected to be an integral part of the global commitment on protecting and restoring the earth’s biodiversity. In addition to the ratification of the Convention on Biological Diversity (CBD) of the United Nations in 1994, Sri Lanka has longstanding unilateral initiatives for protecting and promoting its biodiversity.

The need for conservation of, and sustainable and equitable use of biodiversity in Sri Lanka, is an outstanding case for being an island nation of a biodiversity “hotspot” in the world. The case is further reinforced by increased population pressure and development effort on biodiversity as well as mounting vulnerability to climate change.

In spite of the need of biodiversity conservation and its sustainable and equitable use and its recognition at policy level, one of the fundamental issues that Sri Lanka has to address is its financing. Traditionally, spending on biodiversity was considered to be a responsibility of the government which has always been constrained by narrow fiscal space. For private economic activities, it was an additional cost driver that would squeeze the profit margin and private gains. With increased awareness and global concern over the need for investing rather than spending on biodiversity, today it is universally accepted as part of the core economic activities of a nation that ensures the sustainability of the national and private benefits of biodiversity.

The need for investing in biodiversity by Sri Lanka as a nation should go beyond its ratification to the CBD with actionable finance solutions and effective participation of the stakeholders from the government, the private sector and the civil society. The vision of the BFP is to ensure a sustainable biodiversity management in Sri Lanka supported by a set of appropriate finance solutions.

### Vision for biodiversity financing and the national agenda

The emphasis on “green outlook” is an outstanding feature of the Sri Lankan policy making and development agenda. The most recent attempts could be observed in the country’s *Public Investment Programme 2017-2020* of the Ministry of National Policies and Economic Affairs (2017) and the *Budget Speech 2018* by the Minister of Finance (November 2017).

Public Investment Programme 2017-2020 emphasizes the importance of environmental management in the national development strategy: *“…the environmental management is of paramount importance in achieving sustainable development. Hence, in development planning it is necessary to pay due attention to conserving biodiversity and ecosystems which is essential to maintain the ecological balance.”* (**Public Investment Programme 2017-2020**, p. 114)

By introducing the concept of “Blue-Green Budget” as it was titled, the Minister of Finance elaborated the concept: *“It is “Blue” because we plan to integrate the full economic potential of ocean related activities in formulating the overall growth strategy. It is “Green” because we build our economy on an environmentally sustainable development strategy.”* (**Budget Speech 2018**: pp.4-5).

Given this national policy guideline together with the country’s international commitments on biodiversity, sectoral policy documents also incorporate environment and biodiversity as essential components of their strategies.

Some of the major challenges identified by the NBSAP 2016-2022 is, however, the lack of capacity to translate policies, plans and strategies into implementable actions, and the lack of financing. The vision of the BFP is directly linked to this capacity issue with a view of setting financing mechanisms and solutions.

|  |  |  |
| --- | --- | --- |
| Table 1: Biodiversity Finance Needs within national environmental plans 2018-2024 | | |
| National Biodiversity Plans | Cost  (LKR million) | Cost share (%) |
| NBSAP (2016 - 2022, redefined as 2018 - 2024)  National Biodiversity Strategic Action Plan | 13437 | 43.7 |
| NRIFAP (2018 - 2022)  National REDD+ Investment Framework and Action Plan | 14884 | 48.5 |
| NAP-CLD (2015 - 2024)  National Action Program for Combating Land Degradation in Sri Lanka | 1891 | 6.2 |
| NAP-CCI (2016 - 2025)  National Adaptation Plan for Climate Change Impact in Sri Lanka | 501 | 1.6 |
| Total cost of national biodiversity plans | 30713 | 100.0 |

There are four national biodiversity-related strategic plans (Table 1), which are taken into consideration by the FNA for estimating the financial gap. The vision of the NBSAP is “Sri Lanka’s biodiversity is valued, conserved and sustainably used to benefit all its citizens”. The NBSAP has set 12 national targets formulated under five strategic objectives. With its re-defined time horizon as 2018-2024, the implementation of the NBSAP costs LKR 13.4 billion, which is 43.7 percent of the total cost of all plans. The strategic objectives are related to conservation, sustainable use, agrobiodiversity, equitable sharing and well-being (Table 2). While financial need of each of the 12 NBSAP targets varies significantly, reducing habitat loss (Target 2) needs 53.1 percent of the total and, reducing species (Target 4) 28.7 percent of the total.

In addition to NBSAP, the FNA has taken into consideration three more national biodiversity-related strategic plans for estimating the financial gap. According to National REDD+ Investment Framework and Action Plan (NRIFAP) 2018-2022, Sri Lanka will harness the transformational potential of REDD+ to ensure improved land management practices that protect, maintain and enhance ecological functions and social benefits, while sustaining current economic growth. The implementation of NRIFAP costs 48.5 percent of the total financial gap identified in the FNA. The National Action Program for Combating Land Degradation in Sri Lanka (NAP-CLD) 2015-2024 and the National Adaptation Plan for Climate Change Impact in Sri Lanka (NAP-CCI) 2016-2025 are mainly concerned with strategic plans to address the issues of land degradation and the impact of climate change, respectively. But for the BIOFIN process, only the biodiversity related plans were considered in the FNA report. As an example even though there are many recommendations in the NAP-CCI, for the BIOFIN estimations only the recommendations in the Eco systems and Biodiversity section were considered.

|  |  |  |
| --- | --- | --- |
| Table 2: National Biodiversity Strategic Action Plan: Objectives and Targets | | |
| Strategic Objectives | NBSAP Targets | Cost share (%) |
| Conservation | 1. Inventorying species and ecosystems | 3.6 |
| 1. Reducing habitat loss | 53.1 |
| 1. Managing PA network | 1.0 |
| 1. Reducing species loss | 28.7 |
| Sustainable use | 1. Mainstreaming biodiversity valuation | 0.2 |
| 1. Mechanisms for sustainable use of biodiversity | 0.1 |
| 1. Promotion of traditional sustainable uses | 0.1 |
| Agrobiodiversity | 1. Promotion of sustainable agriculture practices | 1.9 |
| 1. Conservation of genetic diversity | 5.1 |
| Equitable sharing | 1. Mechanisms for equitable benefit sharing | 0.1 |
| Well-being | 1. Enhancing ecosystems capacity | 6.0 |
| 1. Assuring biosafety | 0.2 |
| Total cost of NBSAP implementation 2018-2024 (LKR billion) | | 13.4 |

Sri Lanka’s national priorities and strategies are represented by the objectives, actions and targets set out in the above national biodiversity-related plans. The BFP is expected to address the financial needs of the NBSAP and other national strategic plans.

The vision of the BFP is directly linked, among the Sustainable Development Goals (SDGs), to Goal 13: Climate Action, Goal 14: Life below Water and, Goal 15: Life on Land. They are indirectly linked to many other SDGs such as Goal 6: Clean Water and Sanitation, Goal 11: Sustainable Cities and Communities and, Goal 12: Responsible Consumption and Production.

### Branding Sri Lanka: Investing in Biodiversity as a Business Case

Investing in biodiversity for its conservation and sustainable use is no longer considered an additional cost driver for the government’s fiscal operations, the corporate sector’s core businesses and, the community’s sustainability. There is a short-term and long-term flow of returns for investment in biodiversity. The proposed finance solutions constitute a business case for an “investment for a return” by enhancing the “brand name” of the nation.

The investment in biodiversity can be viewed from different perspectives to elaborate its flow of returns to stakeholders from different sectors as follows:

|  |  |
| --- | --- |
| Stakeholder | Business perspective |
| For the Government | For the government, enhanced investment in biodiversity means bridging the gap between desirability and feasibility. Apart from the international commitments made by the successive governments of Sri Lanka, there has been unilateral policy initiatives on enhanced spending on biodiversity as emphasized in the national and sectoral policy documents. Traditionally constrained by a narrow fiscal space, often such national commitments were prevented from reaching their full potentials. Innovative and alternative mechanisms of enhanced biodiversity financing enable the government to ease its capacity constraint. |
| For the Corporate sector | For the corporate sector, enhanced investment in biodiversity means improving their competitiveness. Investment in biodiversity has been increasingly an integral part of core business of the corporate sector in many ways. It is a value addition to their products which enhances product quality, market value, social appreciation and, global reputation. It enabled the business sector to comply with international environmental standards and to improve the competitive market access. It expands and strengthens the long-term cost advantage and business sustainability. |
| For the Community | For the community, investing in biodiversity means enhancing people’s access to pleasant living and healthy life for themselves as well as for their children and children’s children. Biodiversity provides the community with clean air to breath, fresh water to drink, healthy food to eat and, unspoiled environment to live. Investing in biodiversity allows people to enjoy their pleasant living and healthy life by conserving and sharing nature. |
| For the Nation | For the nation as a whole, investing in biodiversity means the formation of the stock of natural capital. Biodiversity of the country is part of the capital assets belonging to the nation along with financial capital, physical capital, and human capital; overall stock of capital assets contributes to its wealth creation. Investing in biodiversity is the nation’s effort to build natural capital and to compensate for its depreciation so that the nation’s prosperity can be enhanced for the present and, sustained for the future. |

The overall outcome of the BFP is, therefore, a national effort in enhancing the “brand name” of the country, by shifting away from the case of “business as usual” to a “business case” of investing in biodiversity. The BFP is designed to achieve this outcome by mobilizing resources with the participation of all major stakeholders - the government, the corporate sector and, the community.

## 2. Goals, Objectives and Targets

### Goal

The goal of the BFP is to fill the biodiversity financing gap in Sri Lanka, thereby increasing investment in conserving biodiversity and promoting its sustainable use.

The finance solutions are directed at addressing the finance gap in spending on biodiversity-related activities. The gap is defined as the difference between current spending by the nation on biodiversity and the required medium-term finance to achieve national biodiversity targets. While “medium-term” is defined as seven years from 2018-2024, the national biodiversity targets are extracted from the NBSAP and other biodiversity-related national strategic plans.

### Objectives

Enhancement of finance results of the BFP is expected:

1. To be based on generating new finances, re-aligning existing finances, avoiding future spending and, improving the delivery.
2. To be relied on innovative sources of finance by all the sectors - the government, the private sector and, the community.
3. To be ensured with a specific purpose of investing in biodiversity that would not be affected by financial constraints elsewhere.
4. To be promoted as an integral part of the development activities and core businesses of the stakeholders.
5. To be sustained with established mechanisms beyond the medium-term plan horizon of seven years 2018-2024.

Given the above goal and objectives, the BFP is envisaged to make a significant contribution to the biodiversity financing needs of the country. The Plan is expected to address the limitations in current biodiversity financing by unveiling new sources of finance mobilization as well as improving efficiency and effectiveness in current financing mechanisms.

The Plan is expected to widen the current financing sources beyond government’s budgetary allocations to cover the private sector and the community as well. It would contribute to reduce the fiscal burden of the government on the one hand and, to disclose even better opportunities for the private sector and the community to get involved in. Given the narrow fiscal space of the government, perhaps spending in biodiversity is one of the areas where public spending comes easily under pressure. The Plan envisaged the new avenues of finance mobilization which would be free from the pressure from financial constraints elsewhere and, to grow over time even beyond the plan horizon.

### Targets

The BFP targets are set to be achieved during a seven-year plan horizon from 2018-2024. Some principles applied in developing finance solutions are as follows:

1. The monetary target will be set as the total value of financial results that will achieve minimum financial need of LKR 30 billion additional investment in biodiversity during the plan horizon. According to FNA, this is the minimum requirement to achieve the targets of the NBSAP and other biodiversity-related plans.
2. The structure of the total finance results will be a mix of solutions that include finance mobilization, re-alignment of spending, avoiding future spending and, delivering better outputs.
3. The sources of finance solutions will endeavor to reduce the bias towards government finance with greater contribution of the private sector and community.
4. The finance solutions will encourage voluntary participation of the private sector and community ensuring mutual benefits.
5. Sectoral finance solutions will cover key economic activities of the country such as agriculture, tourism, energy and, business sectors in order to maximize biodiversity outcome across the nation.

### Prioritized finance solutions

Table 3 presents 13 prioritized finance solutions, ranked according to the order of the detailed assessment score from the highest to the lowest. At the planning stage, the action plans were prepared for 16 finance solutions, but 3 finance solutions under Payment for Ecosystem Services and 2 solutions under Conservation license plates were bundled, respectively. The main type of finance result for each of the solutions is given in the first column, while some of the solutions can be categorized under more than one type.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 3: Prioritized Finance Solutions, Ranked from highest to the lower Score | | | | |
|  |  |  | Assessment Score | |
| Finance result | Code | Finance mechanism | Rapid assessment: Max 15 | Detailed assessment: Max 95 |
| Avoid spending | SST(A) | Sustainable Standards and Certification | 14 | 76 |
| Better delivery | SST(B) | Eco-labels | 14 | 76 |
| Re-alignment | GL | Green lending | 12 | 74 |
| Re-alignment | CSR(A) | Corporate Social Responsibility | 13 | 74 |
| New financing | LOT | Lotteries | 14 | 70 |
| New financing | PES | Payment for Ecosystem Services | 14 | 68 |
| New financing | GB | Green bonds | 11 | 67 |
| Better delivery | ET | Eco-tourism | 15 | 67 |
| New financing | CLP | Conservation license plates | 12 | 67 |
| Avoid spending | CM | Carbon markets | 11 | 65 |
| Re-alignment | LOB | Lobbying for public budget allocations | 12 | 61 |
| New financing | REM | Diaspora savings and Investment | 11 | 61 |
| Re-alignment | EC | Revenue from environmental penalties | 11 | 58 |

### Linking the goals, objectives and targets

As per given resource mobilization target range, the minimum and maximum levels of potential financial targets as well as their averages were calculated (Table 4). The sub-total for the different categories of financial results are also presented. Accordingly, the aggregate resource mobilization target would be LKR 20.0 billion (US$ 111 million) as minimum and, LKR 46.7 billion (US$ 259 million) as maximum. The average resource mobilization target is estimated as LKR 33.3 billion (US$ 185 million), which is close to the biodiversity finance gap estimated in the FNA report.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Table 4: Resource Mobilization Targets as per Assessment (LKR billion) | | | | | | | CODE | FINANCE SOLUTIONS | % | Average | Minimum | Maximum | | LOT | Lotteries | 2<5 | 1.1 | 0.6 | 1.5 | | PES | Payment for Ecosystem Services | 2<5 | 1.1 | 0.6 | 1.5 | | GB | Green bonds | 15<25 | 6.1 | 4.6 | 7.7 | | CLP | Conservation license plates | 0.1<2 | 0.3 | 0.0 | 0.6 | | REM | Diaspora savings and Investment | 15<25 | 6.1 | 4.6 | 7.7 | |  | NEW FINANCING SOURCES |  | 14.8 | 10.5 | 19.0 | | GL | Green lending | 2<5 | 1.1 | 0.6 | 1.5 | | CSR(A) | Corporate Social Responsibility | 2<5 | 1.1 | 0.6 | 1.5 | | LOB | Lobbying for public budget allocations | 5<15 | 3.1 | 1.5 | 4.6 | | EC | Revenue from environmental penalties | 2<5 | 1.1 | 0.6 | 1.5 | |  | RE-ALIGNMENT OF FINANCES |  | **6.3** | **3.4** | **9.2** | | SST(A) | Sustainable Standards and Certification | 5<15 | 3.1 | 1.5 | 4.6 | | CM | Carbon markets | 5<15 | 3.1 | 1.5 | 4.6 | |  | AVOIDING FUTURE SPENDING |  | **6.1** | **3.1** | **9.2** | | ET | Eco-tourism | 5<15 | 3.1 | 1.5 | 4.6 | | SST(B) | Eco-labels | 5<15 | 3.1 | 1.5 | 4.6 | |  | DELIVERING BETTER OUTPUT |  | **6.1** | **3.1** | **9.2** | | Total estimated revenue | | LKR billion | 33.3 | 20.0 | 46.7 | | USD million | 185.2 | 111.1 | 259.4 | | Exchange rate: US$1 = LKR 180 | | | | | | | |
| **Generic description of the Prioritized finance solutions** | |
| 1. Sustainable Standards and Certification | A voluntary certification of sustainable standards applied mainly to key sectors and economic activities, avoiding future spending; a private contribution to biodiversity |
| 1. Eco-labels | A voluntary green labelling with certified environmental and health standards for production and consumption of goods and services: a system of “better delivery” by the private sector |
| 1. Green lending | A mechanism for re-aligning business lending by the banks and other financial institutes, with private contribution to investment in biodiversity |
| 1. Corporate Social Responsibility | A system of promoting increased share of CSR allocation on biodiversity that would lead to a re-alignment of private spending under CSR budgets |
| 1. Lotteries | A new financing source for mobilizing funds for the specific purpose of investing in biodiversity; private contribution that has to be managed by the government |
| 1. Payment for Ecosystem Services | A new financing source for paying directly or indirectly for ecosystem services and negative externalities either with private or public involvement |
| 1. Green bonds | Issuing green bonds is a new source of financing that can mobilize large amount of financial resources by the public sector as per the financial regulatory mechanism, subject to the country’s debt servicing capacity |
| 1. Eco-tourism | The promotion of eco-tourism as part of the thriving tourism industry improves delivering better tourism services with private contribution to biodiversity |
| 1. Conservation licence plates | A feasible source of funding, but the resource mobilization capacity is small due to the small size of the country and the vehicle market |
| 1. Carbon markets | As carbon markets can be used for avoiding future spending with private contributions to reduce or neutralize carbon emissions in production and consumption activities |
| 1. Lobbying for public budget allocations | A mechanism for improving public sector contribution to investment in biodiversity through re-alignment of public expenditure |
| 1. Diaspora savings and Investment | A new source of finance mobilization that has the potential to attract private diaspora funding for investment in biodiversity |
| 1. Revenue from environmental penalties | A public sector regulatory mechanism to streamline revenue generation from environmental penalties / fines and revenue utilization in the areas of biodiversity as a re-alignment of finances |

### The solutions mix

The mix of different categories of finance solutions reinforces each other in terms of their financial mobilization efficiency as well as their biodiversity impact effectiveness.

They cover all four types of mobilization strategies - new financing sources, re-alignment of financing, avoiding future spending and, delivering better. The solutions refer to both government and private funding, while they intend to offset the existing biodiversity spending bias towards government’s budgetary allocations. Besides, given the narrow fiscal space of the government, any significant contribution anticipated through public sector funding is unlikely to be realistic.

Most of the prioritized solutions are already in operation, though at a small-scale, so that scaling up the operations with coherent resource mobilization mechanisms is not entirely a new initiative. Some are consistent with the issues identified and policies proposed in national and sectoral planning documents of Sri Lanka. This is important for more efficient and effective implementation of the solutions as they are responsive to the development requirements of the country.

## 3. Finance Solutions

#### 1. Sustainable Standards and Certification (SST): Sustainable Tourism Certification scheme

The finance solution is to introduce a voluntary Sustainable Tourism Certification scheme to recognize sustainable norms and standards adopted by the tourism industry.

Objective

To encourage service providers operating within the tourism sector to adopt sustainable tourism norms and standards which would have a positive impact on biodiversity.

Description

Sri Lanka’s tourism industry has been growing fast due to sudden increase in tourist arrivals; during past eight years (2010-2017) tourist arrivals increased five-fold. The industry is due to expand further in the future as well. In response, the tourism service has expanded rapidly creating pressure on the country’s biodiversity and ecosystems.

The number of tourist arrivals, which remained less than 500 thousands for most of the years prior to 2010, exceeded 2 million in 2016. Accordingly, the number of accommodation units and other tourism service providers has increased throughout the island. By 2017, there are 401 graded hotels and 26 boutique hotels, while there are 1929 unclassified and supplementary accommodation units (SLTDA 2017: 82).

Rapid increase in tourist arrivals and, the responsive increase in tourist service supply have created ever increasing pressure on biodiversity: over-usage of resources for production and consumption, environmental pollution and degradation, unsustainable solid waste management, and negative impact of tourism development activities on biodiversity and ecosystems are some of the prominent areas of increased pressure on biodiversity.

“As visitor numbers increase, there is mounting pressure to manage environmental impacts in areas of high tourist use, for land use in high tourism potential areas, to access appropriately skilled human resources, and to maintain tourist service and product quality standards.

It can already be seen in certain areas that the rush to develop and expand tourism in Sri Lanka is harming the natural environment and excluding local communities and local content — the very foundation and uniqueness of the Sri Lankan travel experience.”

SLTDA (2017): *Sri Lanka Tourism Strategic Plan 2017-2020*, p.4

Sri Lanka does not have a sustainable norms and standards adopted by the tourism industry, other than the environmental regulatory mechanisms. Some of the hotels - mostly the large ones, comply with international certifications which appear to be expensive for most of the service providers. The proposed finance solution is expected to establish a national certification scheme which will enable the industry participation and compliance to standards.

The sustainable norms and standards are those that can be applied for conservation and sustainable use of biodiversity by the service providers in the tourism industry. The assessment is by an authorized third party which will have the powers and responsibilities to issue the Sustainable Tourism Certification to the service providers which comply with different levels of sustainable criteria, including in particular those relevant to conserving biodiversity.

The proposed finance solution is expected to encourage service providers operating within the tourism sector to invest in conservation and sustainable use of biodiversity as part of their core business activity. The certification scheme will be based on the Global Sustainable Tourism Council (GSTC) criteria as the baseline for developing sustainable standards for the tourism industry. This will enable tourism service providers to integrate the internationally accepted sustainable tourism criteria, in addition to biodiversity standards. The solution is planned to be implemented under the two stages as follows:

Phase 1: the development of criteria for, and establishment of the mechanism for Sustainable Tourism Certification scheme for the accommodation sector; the criteria are expected to reflect aspects such as sustainable management, socioeconomic impact, cultural impact and, environmental impact of the operations in the tourism industry.

Phase 2: the implementation of the Sustainable Tourism Certification scheme for accommodation sector and, expanding it to cover all other sectors in the tourism industry such as travel, tour operation, recreation and restaurants; this will cover all sectors within tourism industry, bringing the entire industry into sustainable tourism practices,

Business case

The solution is expected to bring the tourism industry into a national sustainable tourism certification scheme, while encouraging private investment in biodiversity. This scheme will be attractive to the tourism service providers as it would enhance their business competitiveness at firm level and improve the overall tourism sector of the country at industry level.

The proposed finance solution is expected to contribute to NBSAP targets 2 and 4 by reducing pressure on biodiversity from the thriving tourism industry and, to target 6 by enhancing sustainable use of biodiversity resources.

Responsibility

Sri Lanka Tourism Development Authority (SLTDA) emphasizes in its *Tourism Strategic Plan 2017-2020* (p.89) the need for a national Sustainable Tourism Certification scheme in the tourism industry. Thus, under the proposed finance solution the BIOFIN initiative will support the SLTDA to develop and establish the scheme under two phases.

Financial result

This is a voluntary private investment avoiding future spending on biodiversity. There are 2094 registered accommodation units in the tourism industry in the country in 2017; this includes 401 large/graded hotels and 1693 small/ungraded hotels providing accommodation in the tourism industry. There are 337 new projects with US$ 8.9 million average investment per unit (SLTDA, Tourism Industry Report 3rd Quarter 2018).

As reported by informants from the industry, assuming that on average 0.5 percent of investment is allocated for improving a given set of sustainability criteria among half of the existing accommodation units will generate US$ 45 million investment in sustainable tourism criteria. This investment is expected to finance infrastructure, equipment, technology, and human resources in the areas related to sustainability criteria.

There are 1540 registered other tourism service providers which include restaurants, travel agents, tour operators, recreational services, tourist shops and, tourist organizations. On average 0.5 percent of investment allocation among half of the established units will generate additional US$ 33 million investment in sustainable tourism criteria.

Thus, total expected investment for the plan period would be US$ 78 million finances mobilized by the private sector in applying for national sustainable tourism certificate and in avoiding future expenditure on biodiversity.

Action plan

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| PHASE 1 |  |  |  |  |  |  |  |  |  |
| Criteria for sustainable tourism certification for accommodation sector | Developing certification criteria | SLTDA |  |  |  |  |  |  |  |
| Validation | SLTDA |  |  |  |  |  |  |  |
| Government approval | SLTDA |  |  |  |  |  |  |  |
| Capacity building | Training and awareness programmes | SLTDA |  |  |  |  |  |  |  |
| PHASE 2 |  |  |  |  |  |  |  |  |  |
| Implementation for accommodation sector | Application, assessment and certification | SLTDA |  |  |  |  |  |  |  |
| Monitoring and evaluation | SLTDA |  |  |  |  |  |  |  |
| Criteria for sustainable tourism certification for all sectors | Reviewing of criteria | SLTDA |  |  |  |  |  |  |  |
| Incorporating  all tourism-related sectors | SLTDA |  |  |  |  |  |  |  |
| Implementation | Application, assessment and, certification | SLTDA |  |  |  |  |  |  |  |
| Monitoring and evaluation | SLTDA, BIOFIN |  |  |  |  |  |  |  |
| Budget: Phase 1 | US$ 61,700 under the BIOFIN project | | | | | | | | |
| Budget: Phase 2 | US$ 58,300 under the government initiatives | | | | | | | | |
| Financial result | US$ 45 million in Phase 1  US$ 33 million in Phase 2 | | | | | | | | |

#### 2. Eco-labels: Eco Label for products with certified sustainable standards

The finance solution is to introduce an eco-labeling scheme for the agriculture sector and food and beverages industry with certified ecological, environmental and social standards. The solution also aims at addressing the harmful effects of unsustainable agricultural practices on both production and consumption.

Objective

To encourage production and consumption practices according to the norms and standards that would promote conservation and sustainable use of biodiversity.

Description

Eco-labeling is one of the influential means of promoting sustainable consumption and production patterns[[1]](#footnote-1). It is widely known that both consumption and production can deviate significantly from the accepted sustainable norms and standards creating negative impact on the planet and the people. An eco-label is designed to identify the respective good or a service which has proven sustainable standards.

There is no national eco-label system implemented in Sri Lanka, although there are a number of initiatives some of which are sector-specific and some are individual attempts to comply with international eco-labels. Examples include the Cleaner & Greener programme which promotes the reporting and offsetting of emissions by companies, organizations, buildings, events and transportation fleets; Earth check and Green Globe Standard for travel and tourism, The Forest Stewardship Council, the Programme for the Endorsement of Forest Certification (PEFC), Global Organic Textile Standard (GOTS), Naturland Association for Organic Agriculture, the Sustainable Furnishing Council for home furnishing, Fairtrade, The GREENSL labelling system of Green Building Council Sri Lanka (GBCSL). Previous initiatives includes the SWITCH-Asia Project funded by the European Union which, together with the MMDE aimed at selecting, adapting and implementing suitable economic and regulatory policy instruments to promote sustainable consumption policies through an eco-labelling platform in Sri Lanka including small and medium scale enterprises in the food and beverage sector.

Sri Lankan government has endorsed the Ten Year Programme on Sustainable Consumption and Production (SCP) and initiated the development of “National Eco Labeling Platform” at the Ministry of Mahaweli Development and Environment (MMDE). The SCP is defined as a holistic approach to minimize the negative environmental impacts from consumption and production systems.

As the Ministry has already completed the development of policy guidelines for eco labeling and undertaken the capacity development activities, mechanisms are being established to apply eco-labeling for selected three major sectors: **tea, rice, dairy products**. Given this background, there is now an opportunity for BIOFIN to provide a finance solution in supporting the “design and implementation of an eco-labeling system” to cover a wide range of products in the food and beverage sectors.

The objective of the proposed finance solution is to encourage production and consumption of goods and services according to the norms and standards that would promote conservation and sustainable use of biodiversity and ecosystems services. The proposal is to provide technical and financial support to design and implement an eco-labeling scheme with an appropriate regulatory and institutional mechanism for promoting the delivery of eco-labelled goods and services. At operational levels, the finance solution is aimed at supporting the establishment of the SCP mechanism that the Ministry has already developed under the SWITCH-Asia project.

Business case

The selected sectors are the food and beverages industry. While the proposed solution is important in promoting healthier food consumption practices, it is expected to improve sustainable use of resources, waste management practices, energy-saving and alternative energy uses, reduction in land degradation, adaptation of green technologies, and sustainable production practices.

The eco label is expected to provide competitive edge in the national and international markets to the goods and services that carry the label. This will improve the business performance of such production activities which would be of importance for the success of the scheme. At the same time the scheme will enable the country to achieve its national objectives of conservation and sustainable use of biodiversity objectives with private investment in maintaining SCP standards.

The finance solution is expected to contribute especially to the achievement of NBSAP target 6 by ensuring the sustainable use of biodiversity and, target 8 by promoting sustainable agriculture practices.

Responsibility

The scheme is for “better delivery” of goods and services produced under the sustainable norms and standards based on a set of criteria. The leading role for designing the eco-labeling scheme is undertaken by the Ministry of Mahaweli Development and Environment in collaboration with a number of other stakeholders such as National Cleaner Production Centre, Sri Lanka Sustainable Energy Authority, Central Environment Authority, Sri Lanka Accreditation Board, National Productivity Centre and Sri Lanka Standards Institution.

Financial result

A sustainable consumption and production (SCP) mechanism is expected to bring about continuous private investment to deliver “better output” in both goods and services. During the planning period ending 2024, it is expected to cover minimum food and beverage industry which will deliver food and drinks with eco-labels.

There are 4268 business units in the food and beverages sector, which is about one-fifth of the all industrial units with more than five persons engaged in, according to the *Annual Survey of Industries 2016* by the Department of Census and Statistics. They contribute to over 30 percent of industrial output of the country and, generated LKR 32 billion annual fixed investment. A mere 1 percent increase in additional investment on average in order to qualify for a relevant eco-label, will generate over LKR 1.8 billion a during a period of five years, which is equivalent to US$ 10 million. This investment is the value of finances mobilized for delivering a “better output” which has a positive impact on biodiversity.

Action plan

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| Eco-label criteria | Appointing technical and steering committees | MMDE |  |  |  |  |  |  |  |
| Developing criteria and regulatory reforms | MMDE |  |  |  |  |  |  |  |
| Validation by stakeholders | MMDE |  |  |  |  |  |  |  |
| Government approval | MMDE |  |  |  |  |  |  |  |
| Awareness programmes and capacity building  to promote both consumption and production | MMDE |  |  |  |  |  |  |  |
| Implementation | Establishing implementation mechanism | MMDE |  |  |  |  |  |  |  |
| Application, assessment and, labelling | MMDE |  |  |  |  |  |  |  |
| Monitoring and evaluation | MMDE |  |  |  |  |  |  |  |
| Budget | US$ 105,000 | | | | | | | | |
| Financial result | US$ 10 million for 6 year period (2019-2024) | | | | | | | | |

#### 3. Green Lending: “Green Financing” under the Sustainable Banking Network (SBN)

The finance solution is to provide guidelines for the commercial banks to promote and prioritize “green lending” opportunities that are expected to have a positive impact on biodiversity conservation and its sustainable use.

Objective

To encourage commercial banks to prioritize bank lending to business activities which adopt sustainable environment and biodiversity norms and standards.

Description

There have been discussions among policy circles in Sri Lanka about “green financing” initiative, but it has not emerged as a national policy. Nevertheless, commercial banks have already moved fast and competitively on their own in adopting such initiatives incorporating them into their lending practices. The Central Bank of Sri Lanka (CBSL) has also become a member of the Sustainable Banking Network (SBN) of the International Finance Corporation (IFC). The SBN is a community of financial sector regulatory agencies and banking associations from emerging markets committed to advancing sustainable finance in line with international good practice. The SBN facilitates the collective learning of members and supports them in policy development and related initiatives to create drivers for sustainable finance in their home countries.

In Sri Lanka, the private commercial banks have already stepped into different types of “green lending” practices according to their own initiatives. There are 25 commercial banks in the country. While outstanding private credit of the banking system accounts for LKR 4.9 trillion by the end of 2017, which has grown by 15 percent or LKR 650 billion over the period of one year. Given this background, there is an opportunity to provide an effective finance solution under the category of Green Lending.

The objective is to develop a framework with guidelines for the commercial banks to promote and prioritize green lending which have a positive impact on biodiversity and ecosystem services. Thus biodiversity conservation and its sustainable use will be an essential component of the “green financing” initiative. Further, the initiative is expected to be promoted and expanded in covering the businesses at different scales of production and different locations around the country.

“BEST GREEN BANK”

The Commercial Bank of Ceylon received the awards for ‘Best Green Bank’ in 2017 presented by International Finance Magazine (IFM) of the UK for its green lending practices, assisting the clients to reduce environmental footprints and, for its own efforts to make bank operations eco-friendly. The Social and Environmental Management System (SEMS) adopted by the Commercial Bank ensures its lending decisions are made with due consideration to environmental impacts as well as compliance with national laws and regulations on environmental and social issues. The Commercial Bank of Ceylon is the largest private bank in Sri Lanka.

Business case

The “green financing” initiative is a finance solution that meets the policy requirements of the Central Bank of Sri Lanka, a signatory to the Sustainable Banking Network (SBN), as well as the government’s biodiversity financing needs. Therefore, the finance solution is positioned strongly within the national policy framework.

It will be of importance for the business lending of the commercial banks as they are placed in a better position to get access to better financing options at lower costs. Some of the banks have already tapped into funding sources for large funds such as the International Finance Corporation (IFC). This might be an opportunity for the commercial banks to improve their competitiveness and reputation.

From a business point of view, as the country is moving towards sustainable business practices, “green financing” allows the business sector to prepare for complying with policy direction of the country. In addition, some of the sustainability practices lead to lower their long-term average costs, allow them to comply with international sustainable practices and, promote their international competitiveness. While the Road Map that is expected to provide green financing options to the private sector, it is based on both the national biodiversity needs as well as the sustainable banking practices. The two areas are strongly interconnected and, not mutually exclusive.

Responsibility

The Central Bank of Sri Lanka will implement the green lending initiative which is expected to guide the commercial banks in line with an overall policy and regulatory framework. The commercial banks are expected to promote their green lending component within their business lending.

Being a pilot project of the proposed finance solutions, the activities of the “green Financing” initiative have already been commenced in 2018.

Financial result

Out of LKR 655 billion total bank credit to private sector in 2017, nearly 75 percent accounted for loans to production sectors. Out of the total credit to the production sectors, LKR 292 billion, which is 60 percent could be considered as medium and long term credits with maturity period more than 1 year.

It is assumed that short-term loans are mostly to finance operations rather than fixed investment, under the assumption that on average mere 1 percent additional investment is required for complying with green financing requirements, the finance solution can generate additional LKR 2.9 billion, which is equivalent to US$ 16 million annually. This is mobilization of new finances by the private sector, which would lead to re-align production activities with greater emphasis on conservation and sustainable use of biodiversity among other aspects of green financing. For the plan period of the activity from 2019-2024, therefore the finance solution is expected to generate US$ 96 million.

Action plan

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| Road Map of green financing | Developing TOR for the Road Map | CBSL |  |  |  |  |  |  |  |
| Recruiting consultant and developing Road Map | UNDP |  |  |  |  |  |  |  |
| Validation and approval by authorities | CBSL |  |  |  |  |  |  |  |
| Providing guidelines to the commercial banks | CBSL |  |  |  |  |  |  |  |
| Capacity building | Training for the commercial banks | UNDP |  |  |  |  |  |  |  |
| Implementation | Application of Road Map in green lending | Commercial Banks |  |  |  |  |  |  |  |
| Monitoring and evaluation | Monitoring and evaluation activities | CBSL, BIOFIN |  |  |  |  |  |  |  |
| Budget | US$ 100,000 | | | | | | | | |
| Financial result | US$ 16 million per annum; US$ 96 million for 2019-2024 | | | | | | | | |

#### 4. Corporate Social Responsibility and its increased share in biodiversity conservation

The finance solution is aimed at ensuring an increased share of Corporate Social Responsibility (CSR) allocation on biodiversity conservation and establishing ecological approaches to all CSR activities.

Objective

To encourage the corporate sector to ensure a minimum share of the CSR allocation for conservation of biodiversity and to follow the ecological approaches to their all types of CSR activities.

Description

The proposed finance solution is for implementation. The proposal is considered to be less costly on the one hand and, easier to implement on the other hand. It requires a facilitating role to be played by the government agencies.

The corporate sector in Sri Lanka as elsewhere, is involved in CSR activities[[2]](#footnote-2) for which they allocate part of their annual budget, although data on such activities are not readily available. The CSR activities are diverse in focus, but the most common ones are related to social programmes such as health projects, educational projects, supporting sport activities, supporting vulnerable groups, subsidy programmes, and religious activities. However, these activities are also not necessarily guided by established ecological norms and standards; for instance, introduction of invasive flora and fauna species or the use of environmentally harmful activities or material in CSR programmes.

BIODIVERSITY SRI LANKA

Biodiversity Sri Lanka (BSL) is a national platform entirely owned and driven by the private sector. It was initiated in 2012 by the Ceylon Chamber of Commerce (CCC), Dilmah Conservation (DC) and, the International Union for Conservation of Nature (IUCN) and, incorporated as a Not-for-Profit Company Limited in 2015.

BSL was established to promote engagement of the corporate sector in biodiversity and environmental conservation in Sri Lanka. As of today BSL membership includes 80 corporates operating in Sri Lanka, representing diverse industry groups and engaging in diverse biodiversity conservation projects in the country.

Biodiversity or environment is not among the most common CSR programmes. However, these programmes have the capacity to be among the most attractive programmes too. Perhaps, biodiversity conservation is not common because it requires specific technical knowhow on the one hand, and approval from authorities on the other hand. In implementing the proposal, the public sector is expected to play a vital role in these areas in facilitating the re-alignment of CSR allocation on biodiversity conservation.

Some of the large firms have increasingly engaged in biodiversity-related activities, while their associations specifically focus on projects and programmes on environment protection and biodiversity conservation. Evidence suggests that most of the corporates are interested in replanting forests and mangroves, cleaning up environment, other similar activities However, in these cases too it is important to promote making use of ecological approaches that are biodiversity friendly (ex: support eradicating invasive alien species, promotion of indigenous varieties, etc). Therefore, the corporate enthusiasm and experience is important for the successful implementation of the proposal. There are different associations of the corporate sector as national chambers, regional or district chambers and, trade chambers. Some of them are involved in activities of environment protection and biodiversity conservation, without much acknowledgement from or collaboration with the public sector.

As the Biodiversity Expenditure Review (BER) reported, however, there is a gap in the availability of information and data on biodiversity spending by the corporate sector. The proposal may have a secondary impact on reporting the biodiversity expenditure by the corporate sector either as individual corporates or their associations. In this respect, it is also necessary to collaborate with the corporate sector and their associations to generate baseline information as well as to establish mechanisms to gather information.

The proposed finance solution requires multiple partnerships at different levels in order not only to raise and divert a proportion of CRS funds to biodiversity conservation, but also to make such funds utilized effectively for the purpose. The corporate sector consists of large, medium and, small scale units operating at national and sub-national levels. The government agencies and NGOs related to biodiversity conservation and environment protection possess technical knowledge. The partnerships can be established at both national and sub-national level which might be important as far as the regional-specific biodiversity needs are concerned. Mechanisms as such can pool the diverse resources from different sources coupled to CSR funds of the private sector for investing in biodiversity. Further, the regional chambers can also partner with local and provincial governments to execute biodiversity conservation projects. Moreover, CSR allocations on biodiversity can be granted incentives and rewards by the government, which would also encourage their reporting.

The effective implementation of the finance solution requires a perception survey targeting mainly the private sector, framework for building partnerships to divert CSR funds to recommended projects, and a mechanism for effective implementation of the finance solution. The private sector associations that are already functioning can play a major role in undertaking the responsibility of CSR fund mobilization without restricting such activities initiated individually. It is necessary for the public sector and the NGOs to assist the private sector for undertaking recommended biodiversity projects.

Further in all Corporate Social Responsibility related initiatives – irrespective of whether they are people centred or environment centred- certain minimum biodiversity friendly environmental standards could be promoted. As an example, even within a livelihood support initiative, there may be opportunities to avoid land use changes in ecologically sensitive area, sustainable management of indigenous species, management of alien invasive species etc. Therefore, a special attention will be paid to promote ‘biodiversity additionality’ in otherwise human development targeted initiatives.

Business case

The proposed finance solution meets the prevailing biodiversity finance gaps through CSR allocation and, in flexible partnership among the private sector, public sector and the related non-governmental organizations. The public sector can also play a vital facilitating role in addressing the issues that hinder the corporate sector involvement in investing in biodiversity and providing information and guidelines. The proposal is expected to be attractive to the public sector, including those which are operating at local levels and are concerned with environmental issues. Given the facilitating role played by the public sector, the proposal is expected to result in a greater involvement of the corporate sector in biodiversity conservation using the allocations from the CSR. It will enhance the social recognition and market competitiveness of the corporate sector as well.

Responsibility

The Ministry of Mahaweli Development (MMDE) and the Ministry of Local Governments and Provincial Councils (MLGPC) can play the major role of the public sector. The corporate sector can be represented by the chambers of commerce at both national and regional levels as well as other trade associations. At sub-national levels, local governments and regional chambers can be the major partners of the programme.

Financial result

Given the lack of baseline information on the CSR funds and the corporate sector spending on biodiversity conservation, it is not possible to provide accurate estimates of the financial result. As per anecdotal evidence from individual companies, the annual CSR fund allocation by private companies varies significantly between near zero to 10 percent of profits. The higher share of CSR funds towards biodiversity can be seen mostly among large companies. In addition, private companies tend to allocate higher share of CSR fund on biodiversity when such activities become an integral part of the core business activities of the company because it would enhance their business performance as well.

According to the Survey of Industries (2016), there are 20571 units producing LKR 4306 billion annual output. According to Economic Census (2013/2014), there are 18678 units in the service sector, producing LKR 2162 billion annual output. Given the size of the corporate sector, it can be reasonably assume an average contribution of LKR 1 billion a year (0.05 percent of output), which is equivalent to US$ 6 million, for conservation of biodiversity through the CSR allocations of the corporate sector.

Action plan

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| Mechanism for CSR fund raising for biodiversity | Consultation process with the corporate sector | MMDE,  MLGPC |  |  |  |  |  |  |  |
| CSR and perception survey of the corporate sector | MMDE,  MLGPC |  |  |  |  |  |  |  |
| Establishing a Steering Committee comprising stakeholder representation | Steering Committee |  |  |  |  |  |  |  |
| Designing preferred benchmarks, rewards schemes, NGO sector assistance for initiatives that benefit both planet (environment including biodiversity) and people | Steering Committee |  |  |  |  |  |  |  |
| Awareness building on appropriate biodiversity approaches such as eco system approach | Steering Committee |  |  |  |  |  |  |  |
| Establishing the implementation mechanism with the stakeholders | Identifying and listing biodiversity conservation areas and projects, nationally and locally | Steering Committee |  |  |  |  |  |  |  |
| Promoting a national campaign to promote CSR funding for biodiversity |  |  |  |  |  |  |  |  |
| Presenting biodiversity investment opportunities to CSR funding | MMDE,  MLGPC |  |  |  |  |  |  |  |
| Presenting the scheme for corporate sector and public sector at national and local levels | MMDE,  MLGPC |  |  |  |  |  |  |  |
| Implementing the CSR scheme | Implementing projects | MMDE,  MLGPC |  |  |  |  |  |  |  |
| Data reporting and compilation | MMDE |  |  |  |  |  |  |  |
| Monitoring and evaluation | MMDE |  |  |  |  |  |  |  |
| Budget | US$ 120,000 | | | | | | | | |
| Financial result | Expected allocation of CSR on biodiversity is about LKR 1 billion, equivalent to US$ 6 million a year; US$ 24 million for 2021-2024 | | | | | | | | |

#### 5. Lotteries: a lottery for biodiversity conservation

The proposal is to introduce an online lottery targeting a middle-income market segment in order to mobilize finances and build up a fund for biodiversity conservation.

Objective

To mobilize financial resources to fund specific national biodiversity projects and programmes.

Description

Government-owned lotteries in Sri Lanka are a popular and successful means of raising funds outside the normal budgetary process for specific purposes. There are about 30 lotteries managed by two statutory bodies under the Ministry of Finance: National Lotteries Board (NLB) and Development Lotteries Board (DLB). There are on average eight lottery draws a day, each one generating revenues in the range of minimum LKR 500 thousand to as high as LKR 3 million from each draw. Some of the lotteries are for general purpose of fund raising, while others are for specific purposes such scholarships for higher education, health supports, and promoting specific sectors. Among the variety of purposes of a wide range of lotteries in Sri Lanka, however, environment or biodiversity related purposes have not yet been promoted.

An analysis of the current lottery schemes unveils important gaps which constitute an opportunity for introducing a lottery for biodiversity conservation. The existing lotteries are in conventional printed form and sold at a price as low as LKR 20.00 targeting a lower-income market segment. Under these circumstances, there is greater opportunity to introduce a different online lottery, priced at for instance LKR 100 and multiples of that targeting a better-informed middle-income market segment; the new type of the lottery can also be sold through various transaction points of the customers such as banks, super markets, fuel stations, mobile networks and other similar locations.

For a successful implementation, the proposed lottery for biodiversity conservation needs to have specific purposes such as reforestation, coastal conservation, marine conservation and eradication of alien species with the participation of the relevant authorities. As the proposed lottery for biodiversity conservation is expected to be significantly different from the ones which are currently available in the country, it might require new organization framework, different implementation mechanism including web-design, fund utilization mechanism, marketing and distribution systems and, perhaps a new regulatory set up. Therefore, the entire process needs to be designed and approved by the authorities, while the existing lottery infrastructure can minimize some of the implementation costs.

Business case

This is a finance solution which can be implemented with relatively a low cost of introduction generating high revenues continuously. Thus, it is an attractive low-cost solution from the government’s point of view to supplement investment in biodiversity conservation. In fact a lottery for biodiversity conservation is also expected to be attractive to a more knowledgeable market segment as such due its two-sided benefits: the benefits to the individual players of the lottery with prizes and, the benefits to the nation with biodiversity conservation. This market segment tends to keep away from purchasing conventional lotteries.

DUTCH POSTCODE LOTTERY

There are innovative lottery schemes in some of the countries in the world such as the Dutch Postcode Lottery - the largest charity lottery in the Netherlands. The lottery number is based on postcodes in the country so that the whole neighbourhood in a street of one postcode area also wins together at a weekly lottery draw.



In 2017, the lottery was purchased by 3 million players generating €715 million out of which €357 million was granted to 112 charities.

Source: <https://www.novamedia.nl/about-charity-lotteries/the-netherlands/dutch-postcode-lottery>

Retrieved on February 23, 2019

Responsibility

Given the specific purpose of the lottery, it needs to be placed under the purview of the NLB which manages such lotteries for various specific purposes. The lottery fund is to finance investment in biodiversity conservation so that the fund utilization would come under the purview of the relevant government departments: Forest Department (FD), Department of Wildlife Conservation (DWC) and, Department of Coast Conservation and Coastal Resource Management (DCC). Private sector participation is necessary for marketing component of the lottery.

The best practices for fund management and their effective utilization for the biodiversity purpose need to be established. Further there should be a mechanism to mitigate potential social risks of lotteries such as high spending by economically vulnerable community members on lotteries and addiction of certain individuals to buy lotteries.

Financial result

The proposed finance solution is expected to mobilize new finances for the purpose of conserving terrestrial and marine biodiversity and ecosystems. An on-line lottery priced at LKR 100 (or multiples of that) and purchased by a modest number of 100 thousand players a week is estimated to generate revenue of LKR 10 million; this would amount to over LKR 500 million a year, equivalent to over US$ 3 million a year. One financial advantage of the finance solution is the relatively small costs of designing and implementing the lottery scheme.

Action plan

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| Identification of the lottery-type and the market | Conducting a study on the existing mechanisms | UNDP &  Finance Ministry |  |  |  |  |  |  |  |
| Identifying the market, the lottery scheme, operating mechanism including fund utilization mechanism | UNDP &  Finance Ministry |  |  |  |  |  |  |  |
| Negotiations and validation | Finance Ministry |  |  |  |  |  |  |  |
| Approval and, regulatory, and institutional mechanisms | Finance Ministry |  |  |  |  |  |  |  |
| Implementing the lottery scheme | Launching the lottery | NLB |  |  |  |  |  |  |  |
| Establishing a fund management mechanism ensuring that proceeds from the lottery will be invested in biodiversity management |  |  |  |  |  |  |  |  |
| Monitoring and evaluation, including social impacts | NLB |  |  |  |  |  |  |  |
| Budget | US$ 25,000 | | | | | | | | |
| Financial result | US$ 3 million per annum (based on the assumption that minimum 100,000 lottery sales per week); US$ 15 million for 2020-2024 | | | | | | | | |

#### 6. Payment for Ecosystems Services (PES): PES schemes in the energy sector

Electricity power generation in Sri Lanka depends basically on three main sources: thermal oil, coal power, and hydro power. Out of the total electricity generation over 14,000 GWh as in 2016, 31 percent was from thermal oil, 36 percent from coal and, 30 percent from hydro power. As the average unit cost of generating 1 KWh of electricity is LKR 26.59 from thermal oil, LKR 14.00 from coal power and, LKR 3.27 from hydro power.

While the Ceylon Electricity Board (CEB) - a state-owned enterprise generates 77 percent of the total electricity generation, small-scale private power producers (PPPs) generate 23 percent which is purchased by the CEB at fixed price. The Public Utility Commission of Sri Lanka (PUCSL) - an independent regulatory body, regulates the electricity prices for the consumers.

CEB’s revenue account for nearly about 2 percent of the country’s GDP, it is one of the largest single enterprises in Sri Lanka. Average cost per unit is LKR 18.00 per KWh, while average selling price is LKR 16.00 per KWh. Nevertheless, electricity prices are still high in Sri Lanka compared to many other countries in the region. As the hydropower generation and the fuel costs are subject to high volatility, the power generation mix as well as the average costs vary significantly.

PES in the energy sector

PES is new to Sri Lanka so the concept needs to be understood by the various stakeholders and supported by a considerable effort on studies and experiments.

An introduction of PES in energy sector is considered important because power generation has significant negative implications on the country’s biodiversity and ecosystem services whilst the condition of watersheds also influences power generation efficiencies especially in hydropower. In addition, PES appears to have a positive impact on resolving some of the internal issues in the energy sector that affects the cost advantage and competitiveness of the national economy.

There are three finance solutions proposed under the PES: (6A) Payment for watershed management at mini-hydro power plant, (6B) Payment for watershed management for hydropower generation at Moragahakanda and, (6C) Payment for negative externalities of coal power generation. While the three finance solutions proposed stand as three distinct cases of the energy sector in Sri Lanka, taken together they are reinforcing and comprehensive in respect of covering the entire energy sector.

**6A Payment for watershed management at mini-hydro power plant**

The finance solution is to ensure watershed management with a PES scheme to sustain hydropower generation by a Mini-Hydro Power (MHP) plant. The proposal is a case study with an implementation project.

Objective

To improve watershed management through a PES scheme for enhancing and sustaining hydro-power generation by a private power producer

Description

There are more than 150 MHP producers in the country who generates electricity from their small-scale power plants using the natural water streams. They sell their product to the national electricity grid owned by the Ceylon Electricity Board (CEB) at a fixed price. However, MHPs operates at extremely low plant factor due to gradual decline in water quantity and quality largely due to the deterioration of the watershed ecosystems. As a result, more than two-thirds of the MHP plants in the country operates with less than 30 percent plant factor. The watersheds can be managed better if the communities and their activities in the upstream areas of the power plants collaborate in maintaining the quality of watersheds.

Another social issue is the mistrust of the communities towards MHP operators whom they see as alien to the area and whose purpose is to exploit their resources and to make profits. A PES system can no doubt, lead to a better management of the watersheds, while it also helps in building better relations between communities and MHP operators.

The Proposal covers two Phases of the project:

1. Phase 1: Feasibility and Design of the PES mechanism
2. Phase 2: Implementation of PES mechanism

For the project, a private MHP company will be selected on voluntary basis. This case study and the PES mechanism is expected to be an experimental case that can be replicated for many other MHP companies as well as similar cases elsewhere.

The finance solution will result in an avoiding future costs of ecosystems management and a mobilization of resources for investing in biodiversity. While the buyers of the ecosystems services are expected to generate and mobilize finances, the sellers are expected to manage the ecosystem services better. The buyers are the MHP producers while the sellers are the communities maintaining the watersheds.

Business case

The finance solution is expected to be attractive to a MHP company because it ensures long-term sustainability of the watershed ecosystems with required quantity and quality of water to generate hydropower. It is an attractive finance solution to the communities who would be the direct beneficiaries of the PES mechanism.

Even if the MHP is willing to add LKR 0.10 to its average unit cost which would reduce the profit margin only marginally, it will improve the plant factor and sustain its long-term stability by improving the long-term profits significantly. Therefore, it could be part of the core business of the MHP operators whose business performance and long-term sustainability are due to improve.

Replacement of expensive thermal oil with improved hydro power will reduce the cost of electricity and expenditure on thermal oil for the CEB in particular and for the national economy. Given the cost difference between hydropower and thermal oil, each additional unit of electricity (KWh) generated from hydropower spending LKR 3.27 plus 0.10 for PES will save LKR 26.59 spent on a unit of power generated from thermal oil. Therefore, the finance solution is viable and feasible from the national policy point of view as well.

While the finance solution derives financial benefits to both the MHP operators and the communities, its main thrust is towards biodiversity conservation and its sustainable use. The communities are expected to manage biodiversity in their own environment out of which they now derive financial benefits too.

The finance solution is expected to contribute to NBSAP targets 2 and 4 with a reduction in habitat loss and species loss its positive impact on deforestation and nature conservation, It will also have a positive impact on sustainable use of biodiversity and ecosystems capacity in achieving Targets 6 and 11.

Responsibility

The study, followed by setting up the implementation mechanism with relevant stakeholders will be undertaken by the International Union for Conservation of Nature (IUCN) together with a selected private MHP company. As the buyer of PES is the MHP and the seller is the users of the biodiversity and ecosystems in the upstream areas, the IUCN will design the implementation mechanism incorporating the relevant stakeholders and a mediating institutions, which would be part of the study. Given the successful implantation of the PES scheme for the MHP, it can be extended to and replicated in other types of MPH companies.

Financial result

MHP operators sell electricity to CEB on average at Rs. 16.00, resulting in a lucrative profit margin of over Rs. 12 per KWh, given the cost of power generation is Rs. 3.27 on average. A payment of LKR 0.1/KWh (10 Cents/KWh) electricity generated will reduce the profits only marginally. MHP, selling 100 GWh electricity to CEB, will mobilize LKR 10 million (US$ 62,500) annually in order to pay for ecosystem services, but will benefit from the better management of watershed for secured power generation as well.

The funds that are mobilized from hydro-power generation would be diverted to the communities who would manage the biodiversity in the upstream areas. Thus a PES mechanism in the power generation sector is of beneficial to the nation not only with better management of the biodiversity, but also with its positive impact on the living standards of the communities, improved business performance of the MHP operators and, reduced energy cost to the economy.

On successful completion of the pilot project with a selected MHP, there is possibility of replicating it across many MHP operators. Since there are more than 150 MHP operators, the replication among many of them would significantly multiply the financial result as well as economic and biodiversity benefits of the proposal.

Action plan

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| PHASE 1 |  |  |  |  |  |  |  |  |  |
| Completion of a PES scheme | Assessment of the relevant ecosystems and drivers of loss | IUCN |  |  |  |  |  |  |  |
| Identifying buyers and sellers | IUCN |  |  |  |  |  |  |  |
| Negotiations and entering into agreements | IUCN |  |  |  |  |  |  |  |
| Designing the PES mechanism | IUCN |  |  |  |  |  |  |  |
| Institutional and policy analysis | IUCN |  |  |  |  |  |  |  |
| PHASE 2 |  |  |  |  |  |  |  |  |  |
| Establishment of a PES scheme | Implementing the PES scheme | IUCN |  |  |  |  |  |  |  |
| Monitoring and evaluation | IUCN |  |  |  |  |  |  |  |
| Documentation and strategy for replication of the scheme | IUCN |  |  |  |  |  |  |  |
| Budget for Phase 1:  Budget for Phase 2: | US$ 40,372  US$ 50,000 | | | | | | | | |
| Financial result | US$ 62,500 per annum (based on the assumption that LKR 0.10 per KWh and that additional 100 GWh to be generated and sold to CEB); US$ 250,000 for 2021-2024 | | | | | | | | |

**6B Payment for watershed management for hydropower generation at Moragahakanda**

The finance solution is to ensure the supply of watershed services at the Moragakahanda reservoir for sustainable hydropower generation through a PES scheme. The proposal is aimed at a study with an implementation component.

Objective

To improve watershed management through a PES scheme for enhancing and sustaining hydro-power generation by the state-owned power generation sector.

Description

Even though hydropower is the cheapest source of electricity generation, its importance in the country’s power generation mix has declined in the long run. Out of the total number of 17 major hydropower stations owned by the Ceylon Electivity Board (CEB), 12 stations were operating with a plant factor below 40 percent in 2016, while only one of the stations has reached 50 percent plant factor. Apart from the erratic weather patterns which is related to climatic changes, the decline in water capacity and the siltation in the main reservoirs has been a major cause underlying the electricity generation capacity of the hydro power plants. The poor land use management and the economic activities in the catchment areas of water reservoirs which resulted in a biodiversity degradation continued to affect the sustainability of water quality and quantity in the reservoirs and, thereby the long-term hydro power generation. The price of electricity based on hydropower does not reflect the upstream externality. Therefore, maintaining the upstream ecosystems is a condition for electricity generation from hydropower which also derives economic and financial benefits to the country.

The main objective is to prepare the study inputs and institutional mechanisms to introduce a payment for ecosystem services (PES) in the hydropower generation sector in Sri Lanka.

Under a PES scheme, a nominal fee is added to the cost of electricity in the case of hydropower generation. Average electricity tariff does not vary with the source of power generation so that increase in hydropower generation does not alter the short-term tariff rate to the electricity users. The additional finances mobilized through the mechanism can be diverted to the communities and agencies in the catchment areas as a payment for better management of the ecosystems there which would guarantee the sustainability of water quality and quantity in the steams and reservoirs.

Moragahakanda reservoir is the latest addition to Sri Lanka’s large-scale multipurpose water reservoirs in 2016 with a hydro power plant of 25 MW installed capacity. This is considered to be one of the best options for implementation of PES because it is new so that its water quality and quantity remains at optimal levels. Secondly, it can be an example to replicate the PES for many other older water reservoirs with both public-owned and private-owned hydropower plants in the country.

The finance solution is to incorporate PES to the electricity cost so that electricity generation from hydropower can be sustained, while conserving the biodiversity in the upstream areas on the one hand and, reducing the electricity generation cost of the expensive sources on the other hand.

The finance solution consists of a study in Phase 1 and implementation component in Phase 2.

The proposed solution will result in an avoiding future costs of ecosystems management and a mobilization of resources for investing in biodiversity. While the buyers of the ecosystems services are expected to generate and mobilize finances, the sellers are expected to manage the ecosystem services better.

Business case

The PES scheme is aimed at ensuring better management of the ecosystem services on the one hand and, improving the price efficiency in power generation in Sri Lanka. Both are national policy objectives, though they are under the mandate of different government agencies. PES mechanism is expected to bring these government agencies together for a national cause.

A payment of LKR 0.10 per KWh (10 Cents/KWh) electricity generated from hydropower will save LKR 23.00 on electricity generated from thermal oil; accordingly, for each 100 GWh electricity generated will mobilize LKR 10 million (US$ 62,500) annually in order to pay for ecosystem services. Therefore, PES fund can mobilize resources not only from tariffs on hydro power, but also from savings on thermal power for investing in ecosystems.

While the biodiversity and ecosystems are managed in a sustainable manner, the PES mechanism can ensure the improved hydropower generation. This will result in potential reduction in power generation from the expensive fossil fuel sources which is a saving to the national economy.

The finance solution is expected to contribute to NBSAP targets 2 and 4 with a reduction in habitat loss and species loss and, to targets 6 and 11 with sustainable use of biodiversity and enhanced ecosystems capacity to provide goods and services.

Responsibility

The sellers of PES are the plantations, organizations, farmers and communities in the upstream catchment areas to conserve biodiversity. The buyers are the users of water in the downstream areas, while the most feasible buyer would be the CEB which operates the hydropower plant. The mediator which connect the two parties would be the owner of the water reservoir which is the Ministry of Mahaweli Development and Environment - the agency that can operate the PES scheme. The study is undertaken for the regulatory body of the utility prices - the Public Utility Commission of Sri Lanka (PUCSL).

Financial result

The finance solution will result in mobilizing resources for preventing future costs, while reducing the cost of power generation. A payment of LKR 0.1/KWh (10 Cents/KWh) electricity generated will save LKR 23.00 from thermal power cost or LKR 11.00 from coal power; accordingly, for 100 GWh electricity generated will mobilize LKR 10 million (US$ 62,500) annually in order to pay for ecosystem services. In addition, 100 GWh electricity from hydropower leads to a saving in the range of LKR 1.4 billion spend on coal power to LKR 2.6 billion spent on thermal oil. Therefore, PES fund can mobilize resources not only from tariffs on hydro power, but also from savings on thermal power for investing in ecosystems.

Action plan

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| PHASE 1 |  |  |  |  |  |  |  |  |  |
| Completing the PES scheme | Assessment of the relevant ecosystems | UNDP  PUCSL |  |  |  |  |  |  |  |
| Identifying buyers and sellers | UNDP  PUCSL |  |  |  |  |  |  |  |
| Negotiations and entering into agreements | UNDP  PUCSL |  |  |  |  |  |  |  |
| Designing the PES mechanism | UNDP  PUCSL |  |  |  |  |  |  |  |
| Institutional and policy analysis | UNDP  PUCSL |  |  |  |  |  |  |  |
| PHASE 2 |  |  |  |  |  |  |  |  |  |
| Validation of the PES | Validating the PES scheme | MPRE/MMDE  PUCSL |  |  |  |  |  |  |  |
| Policy and regulatory reform | MPRE/MMDE  PUCSL |  |  |  |  |  |  |  |
| Establishment of the PES scheme | Implementing the PES scheme | CEB |  |  |  |  |  |  |  |
| Monitoring and evaluation | MMDE  PUCSL |  |  |  |  |  |  |  |
| Developing knowledge products | MMDE  UNDP |  |  |  |  |  |  |  |
| Budget for Phase 1:  Budget for Phase 2: | US$ 58,750  USD 100,000 | | | | | | | | |
| Financial result | Mobilization: US$ 62,500 per annum generated by adding LKR 0.10 per KWh as PES to generate additional 100 GWh;  Saving: US$ 16 million per annum saved from thermal oil based electricity generation; US$ 64 million for 2021-2024 | | | | | | | | |
| Note | MPRE: Ministry of Power & Renewable Energy  MMDE: Ministry of Mahaweli Development and Environment  PUCSL: Public Utility Commission of Sri Lanka | | | | | | | | |

**6C Payment for negative externalities of coal power generation**

The finance solution is to ensure payment for negative externalities of coal power generation as a supportive activity of PES in the Energy Sector. The solution is aimed at a study leading to policy recommendations.

Objective

To establish a mechanism to arrest negative externalities of coal power generation under the “polluter pays” principle.

Description

Coal power is generated in Sri Lanka from a single coal power plant located in Norocholai, Puttlam district which has 900 MW installed power. Since the beginning of the operation of the coal power plant in 2014, its negative externalities with harmful effects on terrestrial and marine biodiversity and ecosystems as well as their health hazards became a source of controversy. It’s all visible to naked eye that coal dust and fly ashes keep polluting both terrestrial and marine environment, but there has been no study to account for the damage and the required policy measures.

However, the coal power generation has received priority in CEB’s Long Term Power Generation Expansion Plan (2015-2034), adding more fuel to the controversy among authorities, professionals, environmentalists and the general public. The issue has grown and intensified into a political turmoil, as no party is willing to compromise causing a significant delays in the implementation of the country’s long-term power generation plan.

While the proposed pilot projects on hydro power generation are concerned with PES schemes, as a supportive activity the study on “paying for negative externalities” is proposed for extending BIOFIN assistance. The study is aimed at estimating the cost of externalities of the coal power generation in Sri Lanka’s coal power plant that affects the biodiversity and ecosystems and at incorporating its costs to the power generation under the “polluter paying principle”.

The study is proposed and undertaken by the Public Utility Commission of Sri Lanka (PUCSL) - the independent regulatory body of the utility sector. The study is aimed at designing a payment principle for negative externalities of coal power generation and at recommending necessary amendments to the related policies and regulations.

The finance solution consists of a study in Phase 1 and implementation component in Phase 2.

The proposed solution will result in a mobilization of financial resources for conserving biodiversity as well as an opportunity of avoiding future costs of the harmful effects of power generation on biodiversity and ecosystems. As coal power generation is about GWh 5000 a year at its current operations, an additional LKR 0.10 per KWh is estimated to generate LKR 0.5 billion (approximately US$ 3 million) annually. As the cost of externalities is expected to be borne by the electricity producer, which is the CEB, it might change the electricity tariff paid by the user. Electricity tariffs are regulated by the PUCSL, it is necessary for the regulator to be guided by research findings to impose an externality tax and to bring about the necessary regulatory amendments.

Business case

The proposal is expected to settle the ongoing controversy in the energy sector which has a cost of delaying the progress of power generation. Therefore, it will provide a viable set of policies and regulations for the government to provide directions to the CEB or any other party which would generate coal power in the future and to the PUCSL which would regulate the electricity prices. The proposal is expected to be attractive to the lobbying groups engaged in the controversy.

The proposal is of importance in contributing to achieve a number of NBSAP targets: Habitat and species losses (Targets 2 and 4) resulting from externalities in the energy sector are expected to decline. Sustainable use of biodiversity is expected to be promoted (Target 6), while ecosystem capacity to provide goods and services is expected to enhance (Target 11) through the solution.

Responsibility

The study is undertaken by the PUCSL which will propose policy recommendations to the government. The CEB is expected to undertake the responsibilities in implementing the payment system. The Ministry of Power and Renewable Energy will bring about the necessary amendments to the policies and regulations, which need to be approved by the government.

Financial result

The finance solution is expected to result in a generation of finances. An addition of LKR 10 Cents per KWh to coal power generation cost would raise cost of coal power marginally, but it will be still much cheaper than thermal oil power. As coal power generation is about GWh 5000 a year, the additional LKR 10 Cents per KWh is estimated to generate LKR 0.5 billion (approximately US$ 3 million) annually. It is a significant amount of finance mobilization to undertake corrective measures to conserve biodiversity by reducing the negative externalities of coal power generation.

The proposed solution will result in a financing system with multiple mechanisms of paying for negative externalities. These include partly compensation payments, partly restoration payments and investments in cleaner production that mitigate future pollution.

Action plan

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| PHASE 1 |  |  |  |  |  |  |  |  |  |
| Assessment of negative externalities of Puttlam Coal Power plant | Reviewing technical literature | PUCSL |  |  |  |  |  |  |  |
| Assessment of coal power generation at Coal Power plant | PUCSL |  |  |  |  |  |  |  |
| Designing the financing system | PUCSL |  |  |  |  |  |  |  |
| Policy and institutional review | PUCSL |  |  |  |  |  |  |  |
| Dissemination of findings and recommendations | PUCSL |  |  |  |  |  |  |  |
| PHASE 2 |  |  |  |  |  |  |  |  |  |
| Establishing a financing system | Obtaining the approval for the policies and regulations | MPRE |  |  |  |  |  |  |  |
| Establishment of the payment system / restoration or offset payments / investments on cleaner production technologies | CEB |  |  |  |  |  |  |  |
| Establishment of the application system | CEB |  |  |  |  |  |  |  |
| Monitoring and evaluation | PUCSL |  |  |  |  |  |  |  |
| Budget for Phase 1:  Budget for Phase 2: | US$ 31,250  US$ 30,000 | | | | | | | | |
| Financial result | US$ 3 million per year; US$ 12 million for 2021-2024 | | | | | | | | |
| Note | MPRE: Ministry of Power & Renewable Energy | | | | | | | | |

#### 7. Green bonds: Issuing international sovereign green bonds

The finance solution is to introduce international sovereign bond restricted for the purpose of investing in biodiversity. The proposal is for implementation of issuing Green Bonds, subject to preliminary studies and recommendations. Other titles that can be considered include ‘nature bonds’ or ‘natural capital bonds’.

Objective

To raise funds from international capital markets by issuing sovereign bonds with a restricted purpose of investing in biodiversity positive activities.

Description

International sovereign bonds are generally issued for mobilizing large sums of finance, while most of the green bonds in the world have been issued to finance such large projects in the areas of energy, climate change, carbon emission and infrastructure.

Because international bonds bring about large sums of debt capital, the issuance of green bonds is recommended for such identified large projects. The necessary financial and institutional infrastructure has already been prepared in the Sri Lankan financial markets for entering into the green bond initiatives. As Sri Lanka has been raising international finance through issuing bonds since 2007, the government and financial institutions are equipped with the necessary infrastructure for the international bond market. In addition, The Central Bank of Sri Lanka (CBSL) and the financial sector in general have already been moving in the direction of sustainable financing.

The issuing of international sovereign green bonds by the Sri Lankan government is recommended as a finance solution to mobilize relatively large sums of debt capital for investing in large-scale biodiversity projects: combatting land degradation, arresting habitat and species loss, maritime reef conservation, coastal conservation, and sustainable energy. These projects are consistent with the national biodiversity targets as outlined in the NBSAP as well. The projects which might have a major economic and financial benefits will strengthen the country’s capacity for debt sustainability. While the issuance of green bonds is the single proposal among prioritized solutions which has the capacity to generate large sums of money, even though it could be rather small by international standards.

BOOMING GREEN BONDS

“Launched by multilateral institutions such as the World Bank and EIB [European Investment Bank], the green bond market was originally viewed as niche. Not so now: it's been less than a decade and green bonds are proliferating.”

According to World Economic Forum, green bonds initiated by issuing US$4 billion in 2010 reached US$82 billion in 2016 and, estimated to be US$150 billion in 2017.

Source: <https://www.weforum.org/agenda/2017/07/what-are-green-bonds-explainer>;

Retrieved on December 22, 2018

There is a possibility to use the green bonds for programmes which might need large investments and the payback period is short to medium term. Catchment restoration, improving the efficiencies hydro power generation are some of the areas that could be benefitted from a sovereign nature bond issue. But as per the experts in the sector Sri Lanka may not be getting a significant benefit by issuing a nature bond in the current context. The authorities are monitoring the international finance markets regularly and when there is a clear advantage, they are ready to issue a ‘nature bond’.

Business case

As Sri Lanka has already moved in the direction of raising international capital through issuing bonds and in adopting sustainable financing initiatives in its financial sector, green bond is an implementable proposal without difficulties if there is a clear advantage of issuing a ‘nature bond’. However, it is recommended for investing in large-scale projects for conservation and sustainable use of biodiversity by the government with or without private partnerships. The solution of green bonds is an option expected to be welcomed by the government faced with financial gaps for investing in biodiversity, but with a risk element due to increased public debt burden, which is running at around 80 percent of GDP as of 2018.

Responsibility

The Ministry of Finance (MF) and the Central Bank of Sri Lanka (CBSL) begin the implementation process. After receiving the Cabinet approval for the initiative Steering Committee and the Technical Committee appointed by the CBSL carry out the implementation process. Lead Managers from among international organizations such as the World Bank, the Asian Development Bank (ADB) and the International Finance Corporation (IFC) are appointed to provide advice and guidance. The bonds are issued by the CBSL in collaboration with international banks, and raise funds which will be credited to the Treasury for disbursements among the projects. The projects need to be implemented under the purview of the Ministry of Finance and the Ministry of Mahaweli Development and Environment (MMDE) or other relevant agencies.

Financial result

The finance solution is to mobilize finances through issuing restricted international green bonds, while the amount of finance mobilization is subject to the international norms and the internal requirement and capacity. Having considered these criteria, the minimum US$ 100 million worth international sovereign green bonds with 5 - 10 year period of maturity is proposed. This requirement is significantly lower by international standards, but the higher amounts of debt financing will increase internal risks.

Action Plan

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| Biodiversity projects for investment | Studying and recommending a list of projects | MMDE |  |  |  |  |  |  |  |
| Estimating financial need for investment | MMDE |  |  |  |  |  |  |  |
| Initial set up | Preliminary discussions among main stakeholders | MF  CBSL  MMDE |  |  |  |  |  |  |  |
| Documentation and Cabinet approval | MF  CBSL |  |  |  |  |  |  |  |
| Finalization of the approval process | Appointing Steering Committee (SC) and Technical Committee (TE) | MF  CBSL |  |  |  |  |  |  |  |
| Appointing Lead Managers | SC/TC |  |  |  |  |  |  |  |
| Documentation and Monetary Board approval | SC/TC |  |  |  |  |  |  |  |
| Final Cabinet approval | MF  CBSL |  |  |  |  |  |  |  |
| Initial offer | Preparing execution plan | SC/TC & Lead Managers |  |  |  |  |  |  |  |
| Meeting with market players | SC/TC |  |  |  |  |  |  |  |
| Issuing the green bond | CBSL |  |  |  |  |  |  |  |
| Mobilization of funds to CBSL/Treasury | CBSL |  |  |  |  |  |  |  |
| Financing biodiversity projects | Disbursement of funds from Treasury | MF |  |  |  |  |  |  |  |
|  | Investing in projects | MMDE |  |  |  |  |  |  |  |
|  | Monitoring and evaluation | MMDE  Audits |  |  |  |  |  |  |  |
| Budget | US$ 120,000 | | | | | | | | |
| Financial result | US$ 100 million | | | | | | | | |
| Note | Lead Managers from among World Bank, ADB, IFC | | | | | | | | |

#### 8. Eco-tourism: Promoting ecotourism practices in the small-scale accommodation sector

The finance solution is to promote sustainable practices for conservation and use of biodiversity as an integral component of “nature-based” tourism in the small-scale accommodation sector.

Objective

To promote “nature-based” tourism services with emphasis on conservation and sustainable use of biodiversity and ecosystems.

Description

Given the rapid increase in tourist arrivals and the increasing tourist demand for small-scale accommodation in Sri Lanka, the proposed finance solution is aimed at promoting ecotourism practices within the small-scale accommodation sector. Tourism demand for accommodation has increased three-fold from about 9 million guest nights in 2010 to 27 million in 2017. This trend has also been accompanied by an increased demand for accommodation in unclassified and supplementary establishments. Unclassified hotels include boutique hotels and villas, while supplementary establishments include guest houses, bungalows, private homes and apartments; they all belong to small category. Evidence suggests that demand for “homestays” - tourist accommodation at refurbished rooms and annexes of private houses at cheaper prices has been on the rise. Out of the total tourist guest nights, demand for unclassified hotels and supplementary establishments increased from 37 percent in 2010 to nearly 50 percent in 2017 with a corresponding decline in the share of demand for classified hotels.

The common issues of increased demand for small-scale accommodation sector and for homestays are identified as resulting from over-visitation, over-production and, over-consumption, all affecting the sustainability of the biodiversity and ecosystem services in the vicinity. It demands for the application of nature-based tourism practices which would enhanced growing demand for such tourism products on the one hand and, counteract the above issues on the other hand. Nature-based tourism practices not only make use of the biodiversity and ecosystems in the tourism sector, but also promote biodiversity within the vicinity of the accommodation units.

Eco-tourism norms incorporate natural area focus, interpretation, environmental sustainability, contribution to conservation, benefits to local communities, cultural respect, customer satisfaction and responsible marketing. However, the individual attempts by many of the accommodation service providers in Sri Lanka appear to have used the term “eco-tourism” in an *ad hoc* manner without an understanding of its norms and standards.

As Sri Lanka is expecting a rapid expansion of its tourism industry with fast-growing tourist arrivals, there is a policy need for balancing the quantitative growth with its qualitative dimensions. In contrast to mass tourism, ecotourism is intended to support this need with a focus on conservation efforts and people, while observing diversity causing less impact on them. It is expected to conserve biodiversity and to mitigate negative impact on it resulting from habitat alteration, over-exploitation of natural environment and, even destruction.

The proposed finance solution is to promote eco-tourism practices in the small-scale accommodation sector which would eventually enhance positive effects on biodiversity, aiming for an overall net positive biodiversity impact. The proposal is consistent with growing concern on sustainability issues of development as well as the emphasis of the national policy documents placed on sustainable tourism.

In the application of the finance solution, the small-scale accommodation sector was chosen, for multiple reasons: While the sector has been expanding fast in response to the growing low-cost tourism demand, the sector appears to have a lack of knowledge and application of ecotourism practices. For the same reason, the potential income generation capacity remains intact, while the negative impact on biodiversity within the vicinity remains ignored. In addition, ecotourism is expected to generate an additional income and employment opportunities for the communities, especially the youth and women.

Business case

The finance solution is consistent with the government’s policy priorities over promoting eco-tourism as outlined in the Sri Lanka Tourism Strategic Plan 2017-2020. It is envisaged to be an attractive proposal to the expanding small-scale tourism accommodation sector which would be lacking the knowledge and skills over eco-tourism practices. The lack of eco-tourism norms and standards is harmful not only to the long-term sustainability of the industry, but also to the environment and community.

|  |
| --- |
| Wildlife under Pressure |
| C:\Users\USER\Pictures\image_1510287555-8c9c724272 (2).jpg |
| Overcrowding at Yala National Park in 2017  Source: *Daily Mirror*, 10 November 2017 |

The adoption of norms and standards of eco-tourism is expected to enhance the market competitiveness and business performance of the small-scale tourism sector, thereby promoting the long-term sustainability of the industry. Furthermore, the enhancement of the eco-tourism norms and standards is envisaged promoting employability, professionalism and incomes of the communities involved in eco-tourism industry. The knowledge-spillover effects of the activity are expected to bring about long-term positive effects on biodiversity of the country.

Responsibility

On behalf of the government, the responsibility is with the Sri Lanka Tourism Development Authority (SLTDA) which would initiate and implement the finance solution together with Provincial Tourism authorities. The necessary technical and financial assistance at the initial stages will be provided by the UNDP.

Financial result

According to the Tourism Industry Report (2018, Q2), out of 2164 registered accommodation establishments, over 90 percent fall under the category of “ungraded” units categorized as unclassified hotels, boutique hotels and villas, guest houses, bungalows, homestay units and, other. They are also “small-scale”, but provide accommodation to about one-third of tourists arriving in Sri Lanka. SLTDA has granted approval for 326 new accommodation projects with nearly US$ 2,895 million investment by June 2018, while 68 percent of these are with less than 49 guest rooms. Average investment per project is US$ 0.9 million (or US$ 900,000) which can be considered much less than the average investment in the large-scale tourism accommodation unit.

This description shows the importance of the target group of small-scale tourism accommodation sector, which is expanding along with rapidly growing tourism industry. A possible scenario suggests that a minimum 10 percent of small-scale accommodation units will chose to adopt relevant norms and standards of the eco-tourism category with an increase in the investment cost by 10 percent. It is reasonably envisaged that a potential scenario as such would generate additional investment of US$ 29 million. This additional investment is the cost of promoting nature-based tourism practices by adopting eco-tourism norms and standards. These norms and standards will generate positive impacts on biodiversity and ecosystems, while promoting natural area focus and community benefits of the tourism sector.

Even though there are potential negative impacts such as exploitation of natural resources and defining any nature related tourism activity as an eco-tourism work on the biodiversity, the positive impacts outweigh the possible negative impacts. The positive impacts include improving the human-nature relationship, improving knowledge and attitudes of communities living in and around important biodiversity areas towards the conservation and sustainable management of biodiversity as well as improving the socio economic status of people living close the biodiversity ‘hotspots’.

Action plan

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| Eco-tourism programme for the small-scale accommodation sector | Studying the ecotourism and financing issues | SLTDA |  |  |  |  |  |  |  |
| Designing the ecotourism road map | SLTDA |  |  |  |  |  |  |  |
| Stakeholder consultation and validation | SLTDA  PCs |  |  |  |  |  |  |  |
| Government approval | SLTDA & Ministry |  |  |  |  |  |  |  |
| Programme implementation | Preparing guidelines and user manuals | SLTDA |  |  |  |  |  |  |  |
| Training the trainers | SLTDA & PCs |  |  |  |  |  |  |  |
| National conference on ecotourism potentials | SLTDA & PCs |  |  |  |  |  |  |  |
| Introducing incentive packages including credit schemes for potential investors on eco-tourism sector |  |  |  |  |  |  |  |  |
| Capacity building programmes | SLTDA &  PCs |  |  |  |  |  |  |  |
| Database with customer reviewing | SLTDA |  |  |  |  |  |  |  |
| Monitoring and evaluation including biodiversity impacts by authorities | SLTDA |  |  |  |  |  |  |  |
| Budget | US$ 200,000 | | | | | | | | |
| Financial results | US$ 29 million additional investment during the plan period 2018-2024 | | | | | | | | |
| Note | PCs : Provincial Councils | | | | | | | | |

#### 9A. Conservation license plates: Green license plates for motor vehicles

The finance solution is to introduce a voluntary motor vehicle license plates for mobilizing finances for the purpose of biodiversity conservation.

Objective

To mobilize funds for investing in biodiversity and to promote social recognition of caring environment through the issuance of special license plates.

Description

Specially branded vehicle license plates - green license plates, can be sold at an extra premium above their normal fees to the users at the point of registering the vehicles. USA and Canada are two countries which have adopted green license plate schemes as a strategy to protect environment as well as to promote cleaner vehicles. In addition, Malaysia and Thailand are two countries in Asia which attempt to move into issuing green license plates.

Green license plates can be provided as an option to vehicle owners in Sri Lanka in order to generate finances for conservation purposes. These license plates also allow the vehicle owners to show their commitment to environment and, thereby make a positive impact on the society raising awareness and strengthening concern over natural environment.

The proposed finance solution is two-fold as to introduce the green license plates for the registered vehicle fleet, and for the new vehicles registered annually.

GREEN LICENSE PLATES IN CANADA

Green license plate is a sign of commitment to cleaner environment by vehicle owners in Canada. Individuals, businesses and fleets are all eligible for optional green license plates, but not all vehicles are eligible to fix them. The vehicles which carry a green license plates are also entitled for certain privileges on roads.



There are 7.25 million registered vehicles in Sri Lanka including motor cycles and three wheelers, while approximately 450,000 - 600,000 new vehicles have been registered annually during the period 2014-2017.

In Sri Lanka this has not been tested or practiced so far. Therefore, it requires an investigation into existing policies, regulations and, institutions as well as a preliminary study of the successful implementation of the proposed initiative. The marketing strategies, pricing options, appropriate communications strategies must be explored further to design such a programme. It is proposed to carry out a detailed feasibility study to understand the potential and process to develop a mechanism to generate finances towards biodiversity conservation and sustainable management processes in Sri Lanka. Fund utilization needs to be based the allocation mechanisms managed under the purview of the key ministries: the Ministry of Finance and the Ministry of Mahaweli Development and Environment.

Business case

The proposal supplements the government spending over biodiversity conservation which has been subject to the narrow fiscal space of the government. Besides, a significant share of vehicle owners belong to a social group which is knowledgeable and concerned about the environment. They are expected to dispense willingly an additional voluntary payment for the purpose of biodiversity conservation.

The proposal, being a general solution for finance mobilization, does not have specific restrictions to particular biodiversity projects. Rather the fund can be utilized by various agencies that are operating biodiversity projects throughout the country. Therefore, the fund utilization is recommended in line with achieving the NBSAP targets. In particular, it is recommended to cover national targets of reducing loss of species and habitats (Targets 4 and 6) and, enhancing ecosystems capacity (Target 11) which are among the top prioritized national targets that require 87.8 percent of the estimated biodiversity spending.

Responsibility

The vehicle registration and the issuing of license plates is the responsibility of the Department of Motor Traffic (DMT) which is under the purview of the Ministry of Transport and Civil Aviation (MTCA). In addition, the Ministry of Finance (MF) needs to be involved in the formulation of the finance solution, and in the utilization and maintenance of the fund. The Ministry of Mahaweli Development together with the relevant Departments for biodiversity conservation are responsible for fund utilization and implementation of the related projects.

Financial result

The finance solution shall mobilize new finance. It is expected to generate US$ 1.4 million per annum, assuming 50% of the newly registered vehicles purchase the conservation license plates at a premium LKR 1000 above the normal registration fee, which is LKR 3300. For a period of 5 years (2020-2024), the solution is expected to generate US$ 7 million into the biodiversity conservation fund.

In addition, the finance solution can be extended to the already existing 7.25 million registered vehicles; assuming 10% the total registered vehicles will join the new scheme, a lump sum of US$ 4 million can be raised from the existing registered vehicles into the conservation fund.

The total finance mobilization from both new registrations and existing registrations is thus estimated to be US$ 11 billion. It should be noted that, however, the cost of supplying a conservation license plate to a registered vehicle is an additional cost to the Department of Motor Traffic, although it is not the case for registering new vehicles. The additional cost is approximately LKR 500 per license plate.

In the context of prevailing regulatory mechanism governing vehicle registration in Sri Lanka as stipulated in the Gazette notification on Motor Traffic (Fees) Regulations, 2011, the proposed finance solution is feasible and sustainable subject to specific amendments to the notification. It requires a Cabinet approval for new amendments proposed by the Minister of Transport which need to be published in the Gazette prior to implementation.

Action plan

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| Recommendations for a Green License Plate scheme | Appointing the technical advisory committee (TAC) | MMDE |  |  |  |  |  |  |  |
| Investigating the regulatory mechanism | MMDE/TAC |  |  |  |  |  |  |  |
| Carrying out the feasibility study | MMDE/TAC |  |  |  |  |  |  |  |
| Formulating finance mobilization and utilization plan | MMDE/TAC |  |  |  |  |  |  |  |
| Verification and approval | MMDE |  |  |  |  |  |  |  |
| Implementation of the Green License Plate scheme | Implementing the scheme for the existing vehicles | DMT |  |  |  |  |  |  |  |
| Implementing the scheme for the newly registering vehicles | DMT |  |  |  |  |  |  |  |
| Managing the mobilization of finances and the fund | MF/MMDE |  |  |  |  |  |  |  |
| Investing in biodiversity | Designing the biodiversity conservation projects | MMDE |  |  |  |  |  |  |  |
| Implementation of the approved projects | MMDE |  |  |  |  |  |  |  |
| Monitoring and evaluating the scheme | MMDE |  |  |  |  |  |  |  |
| Budget | US$ 30,000 | | | | | | | | |
| Financial result | US$ 4 million (assuming voluntarily 10% of existing vehicle fleet)  US$ 7 million for five year period of 2020-2024 (assuming 50% of newly registered vehicles purchase the conservation number plates) | | | | | | | | |
| Notes | TAC - Technical Advisory Committee  DMT - Department of Motor Traffic | | | | | | | | |

#### 9B. Conservation green bank cards

The finance solution is to introduce voluntary Green Bank Cards (credit cards and debit cards) for the purpose of mobilizing finances for biodiversity conservation.

Objective

To mobilize funds for investing in biodiversity and to promote social recognition of caring environment.

Description

The proposal is for specially branded bank cards - credit cards and debit cards to be supplied at the point of subscribing new cards or renewing the existing cards at an extra premium above their normal fees to the users. Out of 15 million adult population in Sri Lanka, 82.7 percent holds bank accounts, according to the financial inclusion data of the World Bank (2015). Given the high financial inclusion of the Sri Lankan society, there are approximately 4 million debit cards and 1.5 million credit cards. The amount of money that the bank card users pay is channeled towards a special fund for biodiversity conservation purposes. The scheme can be marketed with additional incentives to both the banks and the bank customers.

The biodiversity fund can be either a government fund maintained by the Ministry of Finance (MF) or otherwise or a special bank fund maintained by the individual banks themselves. The proposed finance solution is for implementation by the commercial banks with relatively lower set up cost and high financial returns. It also requires minimum technical assistance and government’s involvement in implementing the initiative because issuing bank cards is already commonly practiced by banks.

In Sri Lanka a green bank cards scheme has not yet been tested so that it requires a consultation process and a study about the potential success of the initiative. It is proposed to carry out a detailed feasibility study to understand the potential and process to develop a mechanism to generate finances through green bank cards scheme, the fund management, and fund utilization for the purpose of biodiversity conservation. The green bank cards can feature some endemic and/or endangered species or endemic plants, or a protected area, connoting specific beneficiaries.

There has so far been no similar banking practice in Sri Lanka. However, the proposal is expected to be attractive to the commercial banks in the country which are pioneering with innovative sustainable banking practices. In fact, interviews with the relevant bankers revealed that the initiative is welcomed especially amongst the more affluent and knowledgeable banking customers. The proposal is also consistent with the Central Bank’s green lending finance solution.

Business case

The green credit/debit card scheme is expected to be welcome by the Central Bank of Sri Lanka which has become a member of the Sustainable Banking Network (SBN) and, has initiated with the BIOFIN project to prepare a Road Map for “green financing”. For the commercial banks which have shown their interest in moving towards green lending practices on their own, the proposed Green Bank Cards scheme is a value addition.

The commercial banks will have an opportunity to improve their competitive edge locally and internationally demonstrating their interest in biodiversity conservation. The bank customers will also enhance their social recognition by using green bank cards. For the government too, this is a less-burdensome scheme of generating additional funds for biodiversity conservation.

Responsibility

The commercial banks are informed and provided with guidelines to issue green bank cards to the customers as a voluntary option and, to raise funds for biodiversity conservation. Fund management can be either by the government (Ministry of Finance or otherwise) or by the commercial banks themselves. Fund utilization is for conservation of terrestrial and marine biodiversity which can be carried out either by the respective government departments or by other recognized parties.

Financial result

Finance mobilization is estimated to be high because there are about 4 million debit cards and 1.5 million credit cards in Sri Lanka. Assuming a moderate premium of LKR 100 payment at the point of next “renewal” of these debit and credit cards is estimated to generate LKR 550 million or equivalent to US$ 3.5 million. In addition, newly issued debit and credit cards will also contribute to the conservation fund.

The proposal aimed at building a conservation fund can be utilized for various biodiversity projects in collaboration with the relevant government agencies which can play an important role in technical assistance and implementation. Accordingly, the fund utilization is recommended in line with achieving the NBSAP targets, while reducing the loss of species and habitats (Targets 4 and 6) and, enhancing ecosystems capacity (Target 11) are among the prioritized areas for biodiversity spending.

Action plan

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| Design phase for a Green Bank Cards scheme | Carrying out a market demand study | MMDE |  |  |  |  |  |  |  |
| Providing recommendations | MMDE  CBSL |  |  |  |  |  |  |  |
| Information and guidelines | MMDE  CBSL |  |  |  |  |  |  |  |
| Formulating finance mobilization, fund management and, fund utilization | MMDE  MF |  |  |  |  |  |  |  |
| Verification and approval | MMDE  MF |  |  |  |  |  |  |  |
| Implementation of the Green Bank Cards scheme | Issuing nature bank cards | Commercial banks |  |  |  |  |  |  |  |
| Fund management and fund utilization mechanisms | Commercial banks  CBSL  MMDE  MF |  |  |  |  |  |  |  |
| Investing in biodiversity | Identifying the biodiversity conservation projects | MMDE |  |  |  |  |  |  |  |
| Implementation of the approved projects | MMDE |  |  |  |  |  |  |  |
| Monitoring and evaluating the scheme | MMDE |  |  |  |  |  |  |  |
| Budget | US$ 30,000 | | | | | | | | |
| Financial result | US$ 3.5 million from the renewal of existing cards, assuming voluntarily payment of LKR 100 per card by the users | | | | | | | | |
| Notes | CBSL - Central Bank of Sri Lanka | | | | | | | | |

#### 10. Carbon markets: Introduction of a voluntary CO2 carbon trading mechanism in Sri Lanka

The proposal is to set up a voluntary carbon trading mechanism in Sri Lanka for the purpose of conservation of terrestrial and marine biodiversity. The proposal consists of a study component followed by an implementation.

Objective

To promote carbon-neutral production and, thereby to generate funds through carbon offsets projects for investing in biodiversity.

Description

There are sporadic and small-scale cases of “carbon neutral products” and “carbon market practices” carried out particularly by the private companies in Sri Lanka. The Carbon Consulting Company of Sri Lanka has been involved in forestry and mangrove conservation projects with fund generated from carbon markets. Voluntary carbon offset is also being practiced by some of the private companies particularly in the renewable energy projects.

Two main categories of carbon markets that have been identified are the a) Emissions Trading Systems and B) Voluntary Carbon Scheme. Voluntary demand for carbon offsets is driven by companies and individuals that take responsibility for offsetting their own emissions. The proposal is for carbon offsets projects, while the fund utilization is strictly for biodiversity projects that are recommended with appropriate ecological standards.

Under the proposed finance solution, there is an opportunity to capitalize on and scale-up the above initiatives by establishing an institutionalized international carbon market with the involvement of the government, NGOs and the corporate sector. The initiative requires to carry out a study which should focus on the establishment of an international carbon market mechanism as a means of biodiversity conservation. The initiative requires an estimation and application of a price on carbon emissions from economic activities on the one hand and, specific carbon offsetting programmes in the area of biodiversity conservation on the other hand and, then an institutional and operational mechanism in mediating the two sides. The proposal is to establish this institutional and operational mechanism with the central role assigned to the government.

A specific government agency operating under the purview of the Ministry of Mahaweli Development and Environment in partnership with private agencies will undertake the central role to play in establishing and implementing the carbon market. The agency is expected to provide guidelines for evaluating and assessing carbon emissions in different firms and organizations, operating locally and globally. The firms and organizations which seek to offset their carbon emissions will be connected to the buyers – the local firms, organizations and government agencies which carry out carbon-offsetting investments.

Business case

The voluntary implementation of carbon credit generation projects and carbon emission offset projects in Sri Lanka shows the recognition of the importance of such practices by the private sector. It is also an important area where the private sector companies can demonstrate their CSR as responsible private sector organizations to the business world. The finance solution is expected to be an important mechanism for the corporate sector, both in Sri Lanka and in the world, to demonstrate their environmental and social responsibility by becoming more environmental conscious business entities. They will be interested to quantifying the carbon emissions which eventually will provide them with direct benefits of reducing their recourse consumption. There is growing trend to offset the emissions and make themselves carbon neutral to enhance their reputation and brand value. This can be used to promote a company and create a market value with a competitive edge.

Responsibility

The Ministry of Mahaweli Development has the potential mandate to undertake the main role to play in establishing carbon market in Sri Lanka. With its leading role, the MMDE can partner with NGOs and private companies that are specialized in the area of carbon markets, and the corporate sector bodies which have the concern over carbon market activity. The Steering and Technical committees appointed by the above can carry out the process providing studies, technical details and recommendations to establish the carbon market. These committees will also formulate implementation plans for investment in identified projects for biodiversity conservation with funds generated in the carbon market.

Financial result

The current forest based carbon credit price is US$ 15 per unit. Given the above information, it is reasonably assumed that 100,000 carbon credits would be offset through carbon credit market at average price of US$ 15 per unit. This will generate US$ 150,000 new finances a year from both local and international companies.

The contribution of the finance solution to national biodiversity targets depend on the choice of carbon offset projects with appropriate ecological standards. As most of the projects are assumed to be for the conservation of habitat losses and species losses which should also receive the highest priority, the solution is expected to contribute to achieving national targets 2 and 4 as outlined in the NBSAP.

Action plan

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| Plan for the carbon market | Meeting with the major stakeholders and expertise entities | MMDE |  |  |  |  |  |  |  |
| Establish SC & TC from representatives of the stakeholders | MMDE |  |  |  |  |  |  |  |
| Carrying out the studies and recommendations | SC & TC |  |  |  |  |  |  |  |
| Institutional and regulatory analysis | SC & TC |  |  |  |  |  |  |  |
| Verification and approval | MMDE |  |  |  |  |  |  |  |
| Establishment of carbon market | Setting up the institutional mechanism | MMDE |  |  |  |  |  |  |  |
| Listing out the biodiversity conservation projects | SC & TC |  |  |  |  |  |  |  |
| Setting up the database and partner-communication system | SC & TC |  |  |  |  |  |  |  |
| Launching the carbon market mechanism | MMDE |  |  |  |  |  |  |  |
| Monitoring and evaluation | Conducting monitoring and evaluation activities | SC & TC |  |  |  |  |  |  |  |
| Budget | US$ 120,000 | | | | | | | | |
| Financial result | US$ 150,000 a year from both local and international companies at the average rate of US$ 15.00 per carbon credit emitted. | | | | | | | | |

#### 11. Advocacy for public budget allocations for increased spending on biodiversity

The finance solution is for an implementation programme resulting in an increase in the share of government’s budgetary allocation to expand spending on biodiversity.

Objective

To increase government’s annual budgetary allocation for spending on biodiversity.

Description

The finance solution is for implementation. As per the Biodiversity Expenditure Review (BER), both direct and indirect government expenditure on biodiversity-related activities is as small as 0.3 percent of the annual budget and, 0.07 percent of GDP. There is a clear justification for a substantial increase in budgetary spending for biodiversity. The need for increase in budgetary allocation for biodiversity can be further supported by the uniqueness of the Sri Lankan island as biodiversity and marine “hotspot” and the rapidly changing economic landscape of the country.

SRI LANKA’S

BIODIVERSITY EXPENDITURE

Sri Lanka’s public spending on biodiversity is very low, compared to public spending on health, education and public utilities. Its share of GDP is about one-fifth of the world average.

Spending on biodiversity at sub-national level is insignificant, while information on non-state sector spending is scarce.

Public spending on biodiversity is scattered among 20 agencies under 5 Ministries. Coordination issues and frequent alterations among and within them have raised concern over efficiency and effectiveness of public spending on biodiversity.

* *Biodiversity Expenditure Review*, 2018 April

Given the commencement of the financial year of Sri Lanka on January 1, budgetary process begins with the preparation of expenditure estimates by the government agencies in the mid-year. As the budget takes into account basically the expenditure proposals of the government agencies, the lobbying for an increased share of budgetary allocation for spending on biodiversity should originate from the relevant government agencies with clear project proposals. This means that the relevant government agencies such as the Forest Department (FD), Department of Coast Conservation and Coastal Resource Management (DCC), Department of Wildlife Conservation (DWC) and others that are listed in the National biodiversity plans are required to expand their biodiversity related projects claiming a higher share of government’s budgetary allocations.

This could be achieved by selecting the relevant areas of biodiversity spending as planned and approved in the national reports: NBSAP (2016 - 2022, redefined as 2018 - 2024), NRIFAP (2018 - 2022), NAP-CLD (2015 - 2024), NAP-CCI (2016 - 2025), and others. Then, the relevant government agencies should prepare the budgets with incremental spending that could be requested from the government’s annual budget. The whole process requires planning and executing the programme at 3 levels:

1. Capacity Development on performance based budgeting of government officials involved in the budgeting process
2. Supporting the development of state of the art budget proposals aimed at conservation and sustainable use of biodiversity
3. Providing advocacy on budget proposals by articulating benefits across SDGs, specific biodiversity results that could be achieved and, the growth and development implications of the proposals

Business case

As Sri Lanka is in the process of expanding the tax base with the introduction of the new Inland Revenue Act 24 of 2017, this could be the right timing for lobbying for higher budgetary allocations. It could be rationalized with the exposure of rather small budgetary allocations on biodiversity. The claim for an increased share of budgetary allocation is further justifiable on the ground of strong criticism against poor track record of implementing the country’s strategic plans on biodiversity. The proposal based on already approved strategic plans can be implemented with the existing institutional and their operational mechanisms.

Responsibility

The main responsibility is with implementing agencies of the government such as the departments, statutory bodies and local and provincial government bodies that are operating in the areas related to biodiversity. Therefore, main agencies such as the Forest Department (FD), the Department of Coast Conservation and Coastal Resource Management (DCC), the Department of Wildlife Conservation (DWC) and other related departments and statutory bodies need to be the implementing agencies which prepare the specific projects in line with national plans and lobby for the required allocations from the national budgets.

The mechanism of obtaining higher share of budget allocation depends on the proposed biodiversity plans by the relevant agencies. With viable projects with implementation schedules, the agencies can submit their requests to the Ministry of Finance in line with the annual budgetary process.

Financial result

According to Biodiversity Expenditure Review (BER), total direct and indirect government expenditure on biodiversity amounted to LKR 7 billion in 2015. This amounts to 0.3 percent of total government expenditure. An increase in budgetary allocation from the baseline of 0.3 percent to 0.4 percent of total expenditure, requires an additional LKR 3 billion a year, which is equivalent to US$ 18 million.

Since it is a choice of the government to decide the areas and projects where increased biodiversity can be allocated, it is worthwhile making a list of priority area and projects for spending. This approach will help to specify the achievement of national targets from the NBSAP.

Action plan

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| Set of biodiversity projects | Selection of implementing agencies | MMDE |  |  |  |  |  |  |  |
| Consultation of the implementing agencies | MMDE |  |  |  |  |  |  |  |
| Capacity building on performance-based budgeting for investing in biodiversity |  |  |  |  |  |  |  |  |
| Reviewing the plans and selecting projects | FD, DCC, DWC, and other |  |  |  |  |  |  |  |
| Submission of budgetary estimates | Preparing work plans of the projects | FD, DCC, DWC, and other |  |  |  |  |  |  |  |
| Preparing budgetary estimates | FD, DCC, DWC, and other |  |  |  |  |  |  |  |
| Submission of the budgetary estimates to the Ministry of Finance | FD, DCC, DWC, and other |  |  |  |  |  |  |  |
| Implementation, Monitoring and evaluation | Implementation of approved projects | FD, DCC, DWC, and other |  |  |  |  |  |  |  |
| Monitoring an evaluating activities | FD, DCC, DWC, and other |  |  |  |  |  |  |  |
| Budget | US$ 40,000 | | | | | | | | |
| Financial result | US$ 18 million per annum (an increase in budgetary allocation from current 0.3% of government spending to 0.4% requires an increase in LKR 3 billion)  Here we assume that the long term goal is to maintain 0.4% of government spending. | | | | | | | | |
| Note | Other agencies refer basically to the agencies listed in the national biodiversity plans: NBSAP (2016 - 2022, redefined as 2018 - 2024), NRIFAP (2018 - 2022), NAP-CLD (2015 - 2024), NAP-CCI (2016 - 2025) | | | | | | | | |

#### 12. Diaspora Financing and investment: mobilization of foreign private remittances

The proposal is to mobilize international finance through voluntary savings and investment from the Sri Lankan expatriate community and the migrant workforce.

Objective

To raise international finance from private remittance flows for investing in biodiversity.

Description

The finance solution is proposed for implementation in collaboration with commercial banks and savings banks for the purpose of generating finances for investing in biodiversity. The proposal is expected to be of high potential for mobilizing finance at significantly low implementation cost.

There are two sources of actual or potential foreign remittances: The first is the Sri Lankan expatriate community living mostly in European and Northern American countries as well as some like Australia and New Zealand. The second is the Sri Lankan migrant workforce employed in the Middle East and some other European and Asian countries. They generate private remittance flows about US$ 7 billion a year, which amounts for over 8.5 percent of GDP.

When remittances are not diverted to immediate spending needs of the recipient families, they can be saved or invested for a specific purpose of biodiversity conservation in Sri Lanka. This requires a mechanism which provides a reliable, convenient and attractive savings and investment schemes and an effective and efficient mechanisms of utilizing the finances for a given purpose. This could be a new savings product introduced by the commercial or savings banks or an investment product introduced by the government.

The remittance that is mobilized through this special scheme of savings and investment can ben be used to finance biodiversity conservation. This purpose is believed to be already an attractive means of remittance utilization for expatriates and migrant employees who acknowledge the value of biodiversity conservation at home country.

Business case

The finance solution provides additional means of financing to meet the existing resource gap for investment in biodiversity. Therefore, the proposal is expected to meet the government’s financial need. It is anticipated that the savings and investment scheme for remittance mobilization will be accompanied by additional incentives for savers and investors and, be set apart for the specific purpose of biodiversity projects. Both elements of the scheme are attractive to many representing the expatriate and migrant worker communities. There is potential that the scheme may result in an increase remittance flows to the country as well.

The finance solution is expected to be attractive to savers and/or investors from among the diaspora and migrant workers in two respects, as general and specific: Generally, as a savings or investment scheme, the finance solution carries a rate of return so that savers or investors are expected to choose it among alternative options. With a higher interest premium, it is not advisable to open a flood gate of investment flows, however, as this is expected to be a credit finance solution.

Specifically, the finance solution has an added value for diaspora and migrant workers who are concerned with the biodiversity in the home country. According to banking sources, this segment of savers and investors represent an educated and affluent social class who would be interested in financing biodiversity-related activities at home.

As most of the remittances are transferred through the banking system, it is convenient to offer special savings or investment schemes also through the same banking system in order to mobilize finances for biodiversity conservation. The proposal requires promoting the specific savings or investment schemes over the traditional deposits among the remittances suppliers. Once the funds are generated, it also requires fund management at banks and its utilization for biodiversity conservation.

Investments of the savings should be generating an adequate cash flow to pay back the interest due for the savings. Therefore it is important to identify viable business ideas, mentor them through a recognized mechanism such as business incubators, creating a niche value proposition are some of the other activities that should be implemented in parallel to introducing this scheme.

Responsibility

The Ministry of Mahaweli Development and Environment (MMDE) and the commercial and savings banks of the country are the main stakeholders of the scheme. The banks can implement the savings and investment schemes, while the MMDE can prepare the groundwork including institutional and legal provisions. The MMDE can also intervene in the utilization of funds in biodiversity conservation projects, but the funds through the proposed scheme may be available for NGOs and private sector organizations as well.

It is recommended that the credit financing through the proposal is made available directly to finance identified large-scale biodiversity projects or such projects that are under the purview of the government budget.

Financial result

Current private remittances amount to US$ 7 billion a year. Under the assumption that 1% of the current private remittance is diverted for a new savings and investment scheme, the proposal would generate US$ 70 million a year and, US$ 280 for the period of 2021-2024. This is considered to be an important source of debt financing for investment in biodiversity.

As the finance solution is recommended for large-scale project financing under the purview of the MMDE, the priority areas for biodiversity investment can be decided in such a way that they are aimed at in achieving the national biodiversity targets as specified in the NBSAP.

Action plan

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| Institutional and legal framework | Carrying out a study on the proposed mechanism | MMDE |  |  |  |  |  |  |  |
| Reviewing the institutional and regulatory mechanism | MMDE |  |  |  |  |  |  |  |
| Listing out the biodiversity conservation programmes | MMDE |  |  |  |  |  |  |  |
| Approval for recommendations | MMDE,  MF |  |  |  |  |  |  |  |
| Savings and investment scheme | Stakeholder consultations | MMDE |  |  |  |  |  |  |  |
| Designing the savings and investment scheme | MMDE,  Banks |  |  |  |  |  |  |  |
| Establishing the savings and investment scheme | MMDE,  Banks |  |  |  |  |  |  |  |
| Launching a promotional campaign | MMDE,  Banks |  |  |  |  |  |  |  |
| Investing in biodiversity | Launching the fund utilization projects | MMDE,  Others |  |  |  |  |  |  |  |
| Monitoring and evaluation | MMDE,  Banks |  |  |  |  |  |  |  |
| Budget | US$ 50,000 | | | | | | | | |
| Financial result | US$ 70 million a year, assuming 1% of the annual remittance flows will be voluntarily diverted to the new savings and investment scheme. | | | | | | | | |

#### 13. Strengthening the system of environmental penalties and enhancing funding for biodiversity

The finance solution is proposed in order to ensure a positive impact on biodiversity through an effective enforcement of environmental penalties and effective utilization of penalty revenues.

Objective

To make use of environmental penalties either to increase spending on biodiversity or to reduce negative impacts on biodiversity.

Description

The finance solution is proposed for a review study on the existing environmental penalty mechanisms with underlying institutional and regulatory framework and to bring about policy recommendations for implementation. Below suggests that a comprehensive study is done first.

With increased demand & pressure on biodiversity and ecosystems, the possibilities for environmental crimes have been increasing. There is a high tendency to increase revenue from environment penalties or to reduce the damage on natural environment. Increased revenue from environmental penalties is expected to mobilize finances for biodiversity conservation. Decreased damage on environment is expected to reduce future cost on biodiversity and ecosystems conservation.

As of now the penalties, fees, licenses and compensations from environmental damages include: Court fines from law enforcement, Compensation for habitat losses due to development projects, Government income from timber, sand, gravel and other, and Compensation and mitigation from environmental impact assessment (EIA) of the projects. There is a greater need for a comprehensive review of the overall environment penalty system and to bring about policy recommendations prior to implementing the finance solution. In the first place, there has been no in-depth review of the mechanism aimed at improving the system.

Following table developed by Dr. Jinie Dela for the Policies and Institutional Review of BIOFIN programme shows the diversity of different fines, fees, income from issuing permits and licenses, levies and Cess.

| **Act** | **Implementing Agency** | **Fund** | **Fines** | **Fees** | **Cess** | | **Sales** | **Permits/**  **Licenses** | | | **Levy** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| The National Environmental Act, No.47 of 1980 and its amendments | CEA | CEA fund | x | x |  | |  | x  The Minister may also make regulations in respect of: (a) levy of fees and issue of licenses | | | |
| Environment Conservation Levy Act, No. 26 of 2008 | CEA | ECLA[[3]](#footnote-3)  of the Consolidated Fund (CF) | x |  |  | |  |  | x | | |
| Fauna and Flora Protection Ordinance and its amendments | Primarily DWC; but the SLPD & FD are also  empowered | Wildlife Preservation Fund | x | x |  | | x | x |  | | |
| Forest Ordinance No. 16 of 1907 and its amendments | FD | Forest Department Fund | x | x |  | | x | x  Also offsets |  | | |
| The National Heritage Wilderness Areas Act No. 03 of 1988 | FD | No regulations for fines, fees etc. | | | | | | | | | |
| Coast Conservation Act No. 57 of 1981, and its amendments | CC&CRMD | Coastal Protection Reward Fund | x |  |  | |  | x | |  | |
| Fisheries and Aquatic Resources Act No. 02 of 1996 | DFAR | The Fisheries Reward Fund | x |  | x Collected by Customs Credited to the CF | |  | x | |  | |
| Marine Pollution Prevention Act No. 59 of 1981, and its amendments | MEPA |  | x |  |  | |  | x  Sea dumping  permits | |  | |
| National Aquatic Resources and Development Agency Act No. 54 of 1981 | NARA |  | x | In carrying out its functions, NARA is permitted under the Act to enter into any contract or agreement with government departments, local authorities, public corporations, and other persons and receive donations or charge fees for services such as EIAs etc. | | | | | | | |
| Plant Protection Act No. 35 of 1999 | DoA |  | x |  |  |  | |  | |  | |
| Water Hyacinth Ordinance No 9 of 1909 | DoA |  | x |  |  |  | |  | |  | |
| The Seed Act No 22 of 2003 | DOA |  | x |  |  |  | |  | |  | |
| Soil Conservation Act No. 25 of 1951 and its amendments | DoA |  | x  not in force |  |  |  | |  | |  | |
| Agrarian Development Act No. 46 of 2000 and its amendments | DAD |  | NA | x | Fees: Unclaimed rents by tenant farmers | | | | | | |
| Felling of Trees (Control) Act No. 9 of 1951 and its amendments | DAD |  | x |  |  | x | | CGF of FD can sell illegally felled/ transported timber | | | |
| Control of Pesticides Act No. 33 of 1980 and its amendments | DoA |  | x |  |  |  | |  | |  | |
| Promotion of Export Agriculture Act, No. 46 of 1992 | DEA |  | x |  | x |  | |  | |  | |
| Animal Diseases Act No 59 of 1992 | DAPH |  | x |  |  |  | |  | |  | |
| Animals Act Nos. 29 of 1958, and its amendments l No 46 of 1988 | DAPH |  | - |  | Sale of trespassing cattle funds to CF | x | | x  For transport | |  | |
| The National Zoological Gardens Act no.41 of 1982 | DNZG | Zoological Gardens Funds | - |  |  | x  tickets | |  | |  | |
| The Botanic Gardens Ordinance No. 31 of 1928 and its amendments | DNBG | Botanic Gardens Fund | x |  |  | x  tickets | |  | |  | |
| Irrigation Ordinance No. 32 of 1946 and its amendments | DI | Irrigation Fines Fund | x |  |  |  | | irrigation rate | | x | |
| Colombo District (Low-lying Areas) Reclamation and Development Board Act No. 15 of 1968 and its amendments | SLLR&DB |  | x |  |  |  | |  | |  | |
| Flood Protection Ordinance No.4 of 1924 and its amendments | Irrigation Department |  |  |  |  |  | | flood rate  pd to Irrigation Authority | | x | |
| Mahaweli Authority of Sri Lanka Act No. 23 of 1979 and its amendments | MASL | MASL fund | x | x  For services | x  On farm and other produce |  | |  | | x  Levy or fee for water | |
| Mines and Minerals Act No. 33 of 1992 and its amendments | GSMB | GSMB Fund/  GSMB royalty ac. |  |  |  | x  Royalty | | x  Calls for mitigation | |  | |
| The Ceylon Tourist Board Act, no. 10 of and its amendments | SLTDA |  |  |  |  |  | |  | | x  Levy or fee | |
| Antiquities Ordinance No 9 of 1940 and its amendments | DoArch |  | x  (low) |  |  |  | |  | |  | |
| Sri Lanka Disaster Management Act No. 13 of 2005 | DMC | DMC fund | x | The DMC fund can receive monies by way of loans, donations, gifts or grants from any lawful source in or outside Sri Lanka. | | | | | | | |
| Urban Development Authority Law No. 41 of 1978 and its amendments | UDA | UDA fund |  | x | The UDA can charge rents or fees for any building or for any services provided by it; accept gifts, grants, donations or subsidies whether in cash or otherwise and to apply them for carrying out any of the objects of the Authority. | | | | | | |
| Motor traffic Act no 14 of 1951 and its amendments | Do MT | Reward and Incentive Fund | x | x  and  surch-arges |  |  | |  | | | x |

|  |
| --- |
| Wildlife under Threat |
| C:\Users\USER\Pictures\Mugalan_m250.jpg |
| An elephant found shot dead at Udawalawe National Park  Source: Colombo Page, 2 December 2018 |

As per the Policies and Institutional Review conducted by the BIOFIN programme, most laws enable revenue from fines for contravening legal provisions of the various laws and most fines are updated, and apart from a very few, have adequate monetary penalties. However, courts tend to place the fines at the lower scale. This is because members of the judiciary are not familiar with the importance of bio-resources and ramifications of over-exploitation. Secondly, the implementation mechanisms are fragmented so that there are numerous anomalies across the system affecting the efficiency and effectiveness of the penalty system. Thirdly, the mobilized funds are mostly credited to the consolidated account of the government so that the direct impact of environment penalty system on biodiversity remains an issue for concern. Fourthly, while a few of the agencies implementing various penalty mechanisms have the right to retain a portion of the revenue, a majority do not have an autonomy as such; for instance, the Department of National Botanic Gardens can retain 25 percent its earnings from fees, but most of the Departments cannot retain any of their earnings. Finally, there is a need for reviewing and improving the institutional and regulatory mechanisms that govern the environment penalty mechanisms. All these issues point to the weaknesses of the environment penalty system which ultimately affect their effective and efficient utilization.

The finance solution consists of 2 steps: First is the Gap Analysis of the environmental penalty system in the country, including other revenues such as license fees, entry fees and sales incomes; the Gap Analysis should also include policy recommendations ensuring improved revenue generation and effective utilization of the revenue. The study is aimed at analyzing the existing legal and institutional framework, methodology for determining the penalties and fees, appropriateness of the current penalties and fees, the enforcement issues, fund collection and disbursement, and capacity building.

Second is the implementation of the proposed improvements. The scheme can be extended to cover local government bodies, which have the responsibility to maintain the clean environment and sanitary standards within their local administrative divisions.

Business case

The proposed finance solution is aimed at generating more resources for investing in biodiversity, but also for reducing the environmental crimes. Therefore, it is within the purview of the government’s mandate and commitment for conservation and sustainable use of biodiversity. At individual institutional levels, the proposal is expected to enhance autonomy and capacity to engage effectively in the area of their responsibilities so that it is believed to be attractive to the individual institutions as well. The individual institutions also include local governments which will have an improved financial capability to keep their administrative divisions free from environmental crimes. The proposal is expected to be welcomed by the local communities which seek better environment for living and working.

Responsibility

The key responsibilities are with the Ministry of Mahaweli Development and Environment (MMDE), Ministry of Local Government and Provincial Councils (MLGPC), Ministry of Finance (MF) and, the Sri Lanka Police.

The relevant government agencies that are operating under the above Ministries are as follows: At national level, Forest Department (FD), Department of Wildlife Conservation (DWC) and, Department of Coast Conservation and Coastal Resource Management (DCC) and relevant statutory bodies; At local level, Municipalities, Urban Councils, and Pradeshiya Sabhas; Sri Lanka Police in general and its Environmental Unit in particular can be the supporting institutions to engage in law-enforcement.

Financial result

The solution applies to both mobilizing financial resources and preventing future costs. The revenue target from both mobilized finances and saved future costs is expected to be LKR 1 billion for the seven-year plan period; this would be equivalent to approximately US$ 1 million per year.

The proposal is intended to bring about positive impact on biodiversity in two facets: The improvement in the environment penalty system is expected to have a positive impact on biodiversity, on the one hand. The improvement in the revenue utilization is expected to have a positive impact on biodiversity, on the other hand.

Due to wider coverage of the finance solution to include all forms of revenue generation from such measures as penalties, fees, licenses and compensations, as well as the utilization of revenue for biodiversity conservation in the respective areas, the proposal is also expected to cover multiple biodiversity targets.

Action plan

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output | Main activities | Responsibility | Year | | | | | | |
| ‘18 | ‘19 | ‘20 | ‘21 | ‘22 | ‘23 | ‘24 |
| A study report on environment penalties in Sri Lanka | Consultation with stakeholders | MMDE  MLGPC  MF |  |  |  |  |  |  |  |
| Reviewing the current status and, institutional and regulatory mechanisms | Team of experts |  |  |  |  |  |  |  |
| Environment penalties mechanism | Designing an improved revenue generation and utilization | Team of experts |  |  |  |  |  |  |  |
| Designing institutional and regulatory mechanism | Team of experts |  |  |  |  |  |  |  |
| Validation and approval | MMDE  MLGPC  MF |  |  |  |  |  |  |  |
| Implementation | Training and other forms of capacity building | MMDE  MLGPC  MF |  |  |  |  |  |  |  |
| Implementation by individual government agencies | Government agencies & Local governments |  |  |  |  |  |  |  |
| Utilizing funds for approved environmental conservation projects | Government agencies & Local governments |  |  |  |  |  |  |  |
| Monitoring and evaluation |  |  |  |  |  |  |  |  |
| Budget | US$ 50,000 | | | | | | | | |
| Financial result | US$ 1 million per year; US$ 4 million during 2021-2024 | | | | | | | | |

## 4. Summary of the Action Plan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Finance solution | Objective | Group activities | Time framework | Indicative budget (US$) | Financial result:  2018-2024  (US$) |
| 1 | Sustainable Standards and Certification (SST): Sustainable Tourism Certification scheme | To encourage **accommodation service providers** within the tourism sector to adopt sustainable tourism norms and standards which would have a positive impact on biodiversity | PHASE 1 | 2018 | 61,700 | 45 million |
| * Developing certification criteria * Validation * Government approval * Training and awareness programmes |
| To encourage **all tourism sector service providers** within the tourism sector to adopt sustainable tourism norms and standards which would have a positive impact on biodiversity | PHASE 2 | 2019-2022 | 58,300 | 33 million |
| * Application, assessment and certification * Monitoring and evaluation * Reviewing of criteria * Incorporating * all tourism-related sectors * Application, assessment and, certification * Monitoring and evaluation |
| 2 | Eco-labels (EL): Eco Label for products with certified sustainable standards | To encourage production and consumption of goods and services according to the norms and standards that would promote conservation and sustainable use of biodiversity | * Appointing technical and steering committees * Developing criteria and regulatory reforms * Validation by stakeholder * Government approval * Awareness programmes and capacity building * to promote both consumption and production * Establishing implementation mechanism * Application, assessment and, labelling * Monitoring and evaluation | 2019-2023 | 105,000 | 10 million |
| 3 | Green Lending (GL): “Green Financing” under the Sustainable Banking Network (SBN) | To encourage commercial banks to prioritize bank lending to business activities with in-built mechanisms aimed at adopting sustainable environment and biodiversity norms and standards | * Developing TOR for the Road Map * Recruiting consultant and developing Road Map * Validation and approval by authorities * Providing guidelines to the commercial banks * Training for the commercial banks * Application of Road Map in green lending * Monitoring and evaluation activities | 2018 | 100,000 | 96 million |
| 4 | Corporate Social Responsibility (CSR) and its increased share in biodiversity conservation | To encourage the corporate sector to ensure a minimum share of the CSR allocation for conservation of biodiversity and to follow the ecological approaches to their all types of CSR activities | * Consultation process with the corporate sector * CSR and perception survey of the corporate sector * Establishing a Steering Committee comprising stakeholder representation * Designing preferred benchmarks, rewards schemes, public sector assistance * Awareness building on appropriate biodiversity approaches such as “ecological approach” * Identifying and listing biodiversity conservation areas and projects, nationally and locally * Promoting a national campaign to promote CSR funding for biodiversity * Presenting biodiversity investment opportunities to CSR funding * Presenting the scheme for corporate sector and public sector at national and local levels * Implementing projects * Data reporting and compilation * Monitoring and evaluation | 2019-2021 | 120,000 | 24 million |
| 5 | Lotteries (LOT): a lottery for biodiversity conservation | To mobilize financial resources to fund national projects and programmes for conservation of terrestrial and marine biodiversity | * Conducting a study on the existing mechanisms * Identifying the market, the lottery scheme, operating mechanism including fund utilization mechanism * Negotiations and validation * Approval and, regulatory, and institutional mechanisms * Launching the lottery * Monitoring and evaluation, including social impacts | 2019-2020 | 25,000 | 15 million |
| 6A | PES: Payment for watershed management at mini-hydro power plant | To improve watershed management through a PES scheme for enhancing and sustaining hydro-power generation by a private power producer | PHASE 1: Study | 2018-2019 | 40,372 | 250,000 |
| * Assessment of the relevant ecosystems and the issues * Identifying buyers and sellers * Negotiations and entering into agreements * Designing the PES mechanism * Institutional and policy analysis |
| PHASE 2: Implementation | 2019-2021 | 50,000 |
| * Implementing the PES scheme * Monitoring and evaluation * Documentation and replication of the scheme |
| 6B | PES: Payment for watershed management for hydropower generation at Moragahakanda | To improve watershed management through a PES scheme for enhancing and sustaining hydro-power generation by the state-owned power generation sector | PHASE 1: Study | 2018-2019 | 58,750 | 64 million |
| * Assessment of the relevant ecosystems * Identifying buyers and sellers * Negotiations and entering into agreements * Designing the PES mechanism * Institutional and policy analysis |
| PHASE 2: Implementation | 2019-2021 | 100,000 |
| * Validating the PES scheme * Policy and regulatory reform * Implementing the PES scheme * Monitoring and evaluation * Developing knowledge products |
| 6C | Payment for negative externalities of coal power generation | To establish a mechanism to arrest negative externalities of coal power generation under the “polluter pays” principle. | PHASE 1: Study | 2018-2019 | 31,250 | 12 million |
| * Reviewing technical literature * Assessment of coal power generation at Coal Power plant * Designing the payment system * Policy and institutional review * Dissemination of findings and recommendations |
| PHASE 2: Implementation | 2019-2021 | 30,000 |
| * Obtaining the approval for the policies and regulations * Establishment of the payment system * Establishment of the application system * Monitoring and evaluation |
| 7 | Green bonds (GB): Issuing international sovereign green bonds | To raise funds from international capital markets by issuing sovereign bonds with a restricted purpose of investing in biodiversity | * Studying and recommending a list of projects * Estimating financial need for investment * Preliminary discussions among main stakeholders * Documentation and Cabinet approval * Appointing Steering Committee (SC) and Technical Committee (TE) * Appointing Lead Managers * Documentation and Monetary Board approval * Final Cabinet approval * Preparing execution plan * Meeting with market players * Issuing the green bond * Mobilization of funds to CBSL/Treasury * Disbursement of funds from Treasury * Investing in projects * Monitoring and evaluation | 2019-2024 | 120,000 | 100 million |
| 8 | Eco-tourism (ET): Promoting ecotourism practices in the small-scale accommodation sector | To promote “nature-based” tourism services with emphasis on conservation and sustainable use of biodiversity and ecosystems. | * Studying the ecotourism and financing issues * Designing the ecotourism road map * Stakeholder consultation and validation * Government approval * Preparing guidelines and user manuals * Training the trainers * National conference on ecotourism potentials * Capacity building programmes * Database with customer reviewing * Monitoring and evaluation including biodiversity impacts by authorities | 2019-2022 | 200,000 | 29 million |
| 9A | Conservation license plates (CLP): Green license plates for motor vehicles | To mobilize funds for investing in biodiversity and to promote social recognition of caring environment | * Appointing the technical advisory committee (TAC) * Investigating the regulatory mechanism * Carrying out the preliminary study * Formulating finance mobilization and utilization * Verification and approval * Implementing the scheme for the existing vehicles * Implementing the scheme for the newly registering vehicles * Managing the mobilization of finances and the fund * Designing the biodiversity conservation projects * Implementation of the approved projects * Monitoring and evaluating the scheme | 2019-2022 | 30,000 | 11 million |
| 9B | Conservation green bank cards | To mobilize funds for investing in biodiversity and to promote social recognition of caring environment | * Carrying out a market demand study * Providing recommendations * Information and guidelines * Formulating finance mobilization, fund management and, fund utilization * Verification and approval * Issuing nature bank cards * Fund management and fund utilization mechanisms * Identifying the biodiversity conservation projects * Implementation of the approved projects * Monitoring and evaluating the scheme | 2019-2022 | 30,000 | 3.5 million |
| 10 | Carbon markets (CM): Introduction of a voluntary CO2 carbon trading mechanism in Sri Lanka | To promote carbon-neutral production and, thereby to generate funds through carbon trading | * Meeting with the major stakeholders and expertise entities * Establish SC & TC from representatives of the stakeholders * Carrying out the studies and recommendations * Institutional and regulatory analysis * Verification and approval * Setting up the institutional mechanism * Listing out the biodiversity conservation projects * Setting up the database and partner-communication system * Launching the carbon market mechanism * Conducting monitoring and evaluation activities | 2019-2023 | 120,000 | 450,000 |
| 11 | Advocacy for public budget allocations (LOB) for increased spending on biodiversity | To increase government’s annual budgetary allocation for spending on biodiversity | * Selection of implementing agencies * Consultation of the implementing agencies * Capacity building on performance-based budgeting for investing in biodiversity * Reviewing the plans and selecting projects * Preparing work plans of the projects * Preparing budgetary estimates * Submission of the budgetary estimates to the Ministry of Finance * Implementation of approved projects * Monitoring an evaluating activities |  | 40,000 | 72 million |
| 12 | Diaspora Financing and investment (REM): mobilization of foreign private remittances | To raise international finance from private remittance flows for investing in biodiversity | * Carrying out a study on the proposed mechanism * Reviewing the institutional and regulatory mechanism * Listing out the biodiversity conservation programmes * Approval for recommendations * Stakeholder consultations * Designing the savings and investment scheme * Establishing the savings and investment scheme * Launching a promotional campaign * Launching the fund utilization projects * Monitoring and evaluation | 2019-2021 | 50,000 | 280 million |
| 13 | Revenue from environmental penalties (EC): Strengthening the system of environmental penalties and, enhancing funding for biodiversity | To make use of environmental penalties either to increase spending on biodiversity or to reduce negative impacts on biodiversity | * Consultation with stakeholders * Reviewing the current status and, institutional and regulatory mechanisms * Designing an improved revenue generation and utilization * Designing institutional and regulatory mechanism * Validation and approval * Training and other forms of capacity building * Implementation by individual government agencies * Utilizing funds for approved environmental conservation projects * Monitoring and evaluation | 2019-2021 | 50,000 | 4 million |

## 5. Summary of the Finances

There are 16 prioritized financial solutions including the sub-categories of 3 solutions under the Payments for Ecosystem Service (PES) and 2 solutions under the Conservation License Plates. Out of the total, 10 solutions are for financing from private sources representing all four categories of financing: new finance mobilization, re-alignment of finances, avoiding future spending and, delivering better output. The total financial resources required for the preparation and implementation of all financial solutions for the private sector is estimated to be US$ 940,372, which would result in US$ 267.2 million during the seven-year plan period 2018-2024.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table 5: Prioritized Finance Solutions: Budget and Financial Result | | | | | |
| Categories | Number of solutions | Budget,  LKR million | Financial result,  LKR billion | Budget,  US$ | Financial result,  US$ million |
| Private sources | 10 | 169.3 | 48.1 | 940,372 | 267.2 |
| State-owned enterprises | 2 | 39.6 | 13.7 | 220,000 | 76.0 |
| Government budget | 2 | 16.2 | 13.7 | 90,000 | 76.0 |
| Debt financing sources | 2 | 30.6 | 68.4 | 170,000 | 380.0 |
| TOTAL | 16 | 255.7 | 143.9 | 1,420,372 | 799.2 |

The balance 6 finance solutions fall under three categories of financing sources as 2 for the state-owned enterprises (SOEs), 2 for the government budget and, 2 for debt financing. The SOEs represent the energy sector coming under the CEB. While the estimated implementation budget for the SOEs amounts to US$ 220,000, the resulting financial result for the plan period is estimated to be US$ 76 billion. It should be noted, however, as the financial results are revenues generated or saved annually so that they continue to keep generating long-term finances beyond the plan horizon.

Government budget represents an increased expenditure allocations from tax revenue as well as streamlined environmental penalties for spending on biodiversity. Both require US$ 90,000 as the implementation budget, while estimated mobilization of finances as US$ 76 million during the plan period. Finally, debt financing represent green bonds and remittance financing, which requires US$ 170,000 as the implementation cost. They both are also for international finance mobilization. As both financing sources have the capacity to generate large sums of debt finance, apparently the projected US$ 380 billion is estimated by placing a minimum ceiling cap for both solutions.

All finance solutions require little over US$ 1.4 million implementation budget. The total financial result is estimated to be US$ 799 million during the plan period.

In terms of domestic currency, the total financial result is estimated to be about LKR 144 billion at the current exchange rate of LKR 180 per US$. The estimated total financial result is more than *four-times* the required cost of LKR 30.7 billion in achieving the national biodiversity targets.

# ANNEX

**I. Participants for the Expert Consultation Meeting of BFP**

**19-21 March, 2018 at Jetwing Blue, Negombo**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Name** | **Affiliation** | **Designation** |
| 1 | Sirimal Abeyratne | University of Colombo | Professor in Economics,  Team Leader - BIOFIN |
| 2 | K. Amirthalingam, | University of Colombo | Professor in Economics |
| 3 | Shamen Vidanage | IUCN | Programme Coordinator |
| 4 | Shiranee Yasarathne | Biodiversity Sri Lanka | Advisor |
| 5 | Ajith De Silva | Ministry of Mahaweli Development and Environment | Director – Land Resources |
| 6 | Nilmini Ranasinghe | Ministry of Mahaweli Development and Environment | Assistant Director - Biodiversity Secretariat |
| 7 | Hemamali Herath | Ministry of Mahaweli Development and Environment | Research Assistant - Biodiversity Secretariat |
| 8 | Sampath Ganepalarachchi | Sri Lanka Tourism Development Authority | Director - Finance |
| 9 | Devaka Weerakoon, | University of Colombo | Professor in Zoology |
| 10 | Jinie Dela | UNDP | Consultant |
| 11 | Lakmini Senadeera | The Sustainable Future Group | Manager |
| 12 | Eranda Gamage | Department of Wildlife Conservation | Assistant Director - HRM |
| 13 | Tharuka Dissanayake | UNDP | Policy and Design Specialist - Environment |
| 14 | M.S.A. Mubarak | National Planning Department | Director |
| 15 | Ranga Pallawala | “Janathakshana” | Chief Executive Officer |
| 16 | Asanka Abeykoon | Dilmah Conservation | Head of Dilmah Conservation |
| 16 | Ramitha Wijethunga | National Project Coordinator | UNDP - BIOFIN |
| 17 | Adeesha Perera | Nations Trust Bank | Sustainability Manager |

**II. Action Plan Workshop, BFP**

24 July, 2018 at Taj Samudra, Colombo

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Name** | **Organization** | **Designation** |
| 1 | Gamini Senanayake |  | Freelance Consultant - Environment |
| 2 | Lakmini Senadeera | Sustainable Future Group | Manager |
| 3 | Sahan Dissanayake | Portland State University | Assistant Professor, Environmental Economics |
| 4 | Yashoda Senadeera | Central Bank of Sri Lanka | Senior Economist |
| 5 | Yohan Samarathunge | Central Bank of Sri Lanka | Senior Manager |
| 6 | Rajeeka Ranathunge | SLTDA | Assistant Director |
| 7 | Dinushka Peiris | SLTDA | Assistant Director |
| 8 | Ramitha Wijethunga | National Project Coordinator | UNDP - BIOFIN |
| 9 | Sirimal Abeyratne | University of Colombo | Professor in Economics,  Team Leader - BIOFIN |

**III. Seminars and Workshops in the BIOFIN Process**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Title** | **Dates** | **Place** |
| 1 | BIOFIN INCEPTION WORKSHOP | 3-4 November  2016 | Taj Samudra, Colombo |
| 2 | Stake Holder Consultation Meeting | 8 September  2017 | Taj Samudra, Colombo |
| 3 | Round Table Discussion on Policy and Institutional Review | 23 October  2017 | Ministry of Mahaweli Development and Environment |
| 4 | VALIDATION WORKSHOP – POLICY AND INSTITUTIONAL REVIEW | 24 October  2017 | Waters Edge Hotel, Battaramulla |
| 5 | VALIDATION WORKSHOP – BIODIVERSITY EXPENDITURE REVIEW | 30 October  2017 | Waters Edge Hotel, Battaramulla |
| 6 | VALIDATION WORKSHOP – FINANCE NEEDS ASSESSMENT | 6-7 November 2017 | Citrus Hotel, Waskaduwa |
| 7 | Expert Consultation Meeting on Biodiversity Finance Plan Preparation | 20-21 March  2018 | Jetwing Blue, Negombo |
| 8 | WORKSHOP ON SUSTAINABLE TOURISM CERTIFICATION SCHEME | 5 May  2018 | Taj Samudra, Colombo |
| 9 | Payment for Ecosystem Services Roundtable Discussion | 29-31 May  2018 | Jetwing Blue, Negombo |
| 10 | ACTION PLAN WORKSHOP – BIODIVERSITY FINANCE PLAN | 24 July  2018 | Taj Samudra, Colombo |

**VI. Key Informants and Dignitaries in the BIOFIN Process**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Name** | **Designation** | **Institution** |
| 1 | Indrajit Coomaraswamy | Governor | Central Bank of Sri Lanka |
| 2 | Nandalal Weerasinghe | Senior Deputy Governor |
| 3 | K.D. Ranasinghe | Deputy Governor |
| 4 | C.J.P. Siriwardena | Deputy Governor |
| 5 | Shan Fernando | Chief Manager - R&D | Commercial Bank of Ceylon PLC |
| 6 | R.H.S. Samaratunga | Secretary | Ministry of Finance |
| 7 | K.D.S. Ruwanchandra | Secretary | Ministry of National Policies and Economic Affairs |
| 8 | M.I.M. Rafeek | Former Secretary |
| 9 | Anura Dissanayake | Secretary | Ministry of Mahaweli Development and Environment |
| 10 | Udaya Senevirathne | Former Secretary |
| 11 | Damitha Kumarasinghe | Director General | Public Utility Commission of Sri Lanka |
| 12 | A K. Samarasinghe | General Manager | Ceylon Electricity Board |
| 13 | Kavan Ratnayake | Chairman | Sri Lanka Tourism Development Authority |
| 14 | Upali Ratnayake | Director General |
| 15 | Saman Jayasinghe | Former General Manager | Development Lotteries Board |

1. Recommendations for Eco-Labelling Platform for Sri Lanka, Senaweera and Parasnis (2018). <http://www.scp.mmde.gov.lk/resources/5c3ca9ad1004923169.pdf> [↑](#footnote-ref-1)
2. Please refer to following links for details on some CSR activities, Sri Lankan private sector is engaged with. <http://www.jetwinghotels.com/sustainability/biodiversity/>; <https://www.dilmahconservation.org/> ; <https://www.nationstrust.com/about/responsible-banking/timeline-of-projects> [↑](#footnote-ref-2)
3. Environment Conservation Levy Account [↑](#footnote-ref-3)