Technical Assistance Consultant's Report

Project Number: 51413-001
Knowledge and Support Technical Assistance (KSTA)
March 2023

INCENTIVES FOR ENHANCING GREEN LOANS IN MONGOLIA

Green Finance in Mongolia

Final Report

Asian Development Bank

CURRENCY EQUIVALENTS

Currency Unit	–	togrog (MNT)
MNT1.00	=	$0.0003482
$1.00	=	MNT3,482

ABBREVIATIONS

Abbreviation	Meaning
ADB	Asian Development Bank
BOM	Bank of Mongolia
EBRD	European Bank for Reconstruction and Development
ESI	Energy Savings Insurance
FLS	Funding for Lending Scheme
FMO	Dutch Development Bank
FRC	Financial Regulatory Commission
GCF	Green Climate Fund
GIZ	Gesellschaft für Internationale Zusammenarbeit
GOM	Government of Mongolia
IBS	Integrated Banking Solution
ICAAP	Internal Capital Adequacy Assessment Process
IPRE	Income producing real estate
IRB	Internal ratings based
JICA	Japan International Cooperation Agency
LICs	Low Income Countries
LMICs	Lower Middle Income Countries
MNRE	Ministry of New Renewable Energy
MNT	Mongolian Tugrug
MSE	Mongolian Stock Exchange
MSFA	Mongolian Sustainable Finance Association
OF	Object Finance
PD	Probability of default

Abbreviation	Meaning
PF	Project Finance
PLI	Production Linked Incentive
PSL	Priority Sector Lending
RWA	Risk Weight Asset/ Adjustment
SME	Small and Medium Enterprise
TFSME	Term Funding Scheme with additional incentives for Small and Medium sized Enterprises
USD	US Dollar

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CONTENTS

1. INTRODUCTION

ADB Green Finance KSTA

The Asian Development Bank (ADB) approved the Knowledge and Support Technical Assistance (KSTA) for the Green Finance Policy Framework in Mongolia in in November 2019. The KSTA aims to support the Government of Mongolia in advancing the green finance policy and regulatory framework and in undertaking capacity development to enhance capability to develop green finance projects and products.

Since 2019, the Mongolian green finance regulatory environment has witnessed some developments. For instance, the Mongolian Government have adopted several legislative changes encouraging introduction or scale-up of green finance products such as green bonds or green insurance (2021). In addition, regulatory and policy documents – most important of which is "National Green Taxonomy of Mongolia" (2019) - have been adopted by various Mongolian authorities. Other recently published documents include "Mongolia Sustainable Finance Roadmap" and "ESG & Sustainability Reporting Guidance for Mongolian Companies" (both adopted in 2022) and "Methodology for Assessing and Managing Risks associated with ESG of a Bank" (adopted in 2023).

Adoption of these legal, regulatory and policy documents has led some of the local stakeholders such as Mongolian Sustainable Finance Association (MSFA) and international partners of the Mongolian Government to step up efforts to achieve objectives and goals set out in these documents. One such objective of the government is to increase the share of green loans in the country to 10% of the total loan portfolio of commercial banks and NBFCs by 2030.

Objective of the Report

This report aims to support the government stakeholders in Mongolia to recommend suitable supply-side incentives that can be used to increase the green loan mobilization/ lending in the country, and subsequently support in arranging financing for the green projects.

Below mentioned areas are covered as part of this report across various chapters.

Chapter	***Description***
Existing Incentives	This chapter provides as-is mapping of incentives for green loans and green project development in Mongolia, provided through different government agencies & stakeholders
Stakeholder Discussions	This chapter provides ongoing recommendations which have been proposed by different agencies/ stakeholders like MSFA and BOM in the country for possible implementation, as per various stakeholder discussions
KSTA Recommendations	This chapter provides KSTA recommendations, including a review of proposed policy/ regulatory incentives by MSFA/ BOM and additional incentives that can be considered for implementation, as per international best practices.

2. EXISTING INCENTIVES - GREEN LOANS AND GREEN PROJECTS

2.1. Existing Incentives for Green Loans

As at the date of this Report, there exist two specific incentives which support "green" loans in Mongolia, as mentioned below:

1. Bank of Mongolia provides an additional interest rate 0.5% to the Mongolian commercial banks under long-term cross-currency swap agreement for funds denominated in USD .[1] (In place since June 2021)
2. Mongolian insurers are allowed to use up to 20% of its reserve for acquisition of "green" bonds under the Green Taxonomy of Mongolia.[2] (In place since March 2022)

Given that both the incentives have been notified recently, their uptake is in a nascent stage. The subsequent sections provide more details about these incentives, along with relevant case studies.

Cross-currency Swap Rate

Since June 2021, the BOM has provided to Mongolian commercial banks an additional interest rate of 0.5% for long-term swap agreement of funds denominated in USD, compared to the normal (non-green) cross-currency swap rate. Important caveat is the activity(ies) financed by such loan proceeds should be "green" per the Green Taxonomy of Mongolia. As at the date of this Report, the incentive of additional 0.5% has been used by some Mongolian lenders who are able to tap globally available green funding sources of MDBs such as ADB, GCF or EBRD.

Case-study*:*

Khan Bank, the largest commercial lender in Mongolia, has so far probably been the biggest beneficiary of the additional 0.5% interest rate incentive for cross-currency swap agreements. Since introduction by BOM of this particular incentive, Khan Bank has procured several loans from MDBs and other IFIs.

For instance, in September 2021 it signed a US$120m syndicated facility from lenders led by FMO. The loan funds, among others, financed the green portfolio of Khan Bank's end users. [3] Another facility was US$70m financing from EBRD, consisting of a senior EBRD loan of up to US$ 45m under EBRD's Green Economy Financing Facility, designated for improving access to green technologies for local households in Mongolia. This facility which closed in October 2022 was supported by concessional financing of US$ 15m from GCF.[4]

1 Source: "Regulation on Long-term Swap Contract" of BOM (2021).

2 Source: "Capital Requirements for Insurance Reserve Fund and Compulsory Insurance Fund and Conditions for Use of its Proceeds for Investment" of FRC (2019)

3 https://www.proparco.fr/en/actualites/proparco-and-fmo-support-khan-bank-mongolia. The participants of the syndicated facility were Proparco, DEG, International Investment Bank), and Atlantic Forfaitierungs AG.

4 https://www.ebrd.com/news/2022/ebrd-promotes-climate-finance-and-sme-lending-in-mongolia.html

According to the Mongolian banks active in sourcing “green” lending from IFIs, this additional interest rate of 0.5% is not sufficient of an incentive for Mongolian banks to reduce foreign exchange swap costs given the ever-rising MNT/USD exchange rate. These bankers held the view that the discount should be further increased if it is to have meaningful impact on sourcing “green” funding from overseas.This was discussed in detail by KSTA team with different stakeholders and has been included as part of KSTA recommendations in this Report.

Investment of up to 20% of reserve in “green” bonds

Since March 2022, the FRC has modified the prudential ratios of Mongolian insurers enabling them to use up to 20% of its reserve for acquisition of “green” bonds. Similar to the long-term swap agreements of funds denominated in USD (above), the activity(ies) financed by such bond proceeds should be “green” per the Green Taxonomy of Mongolia.

However, there is no instance of practical uptake of this incentive Mongolian insurers are yet to acquire “green” bonds. The primarily reason is due to supply side – no “green” bonds have so far been issued in Mongolia. According to the FRC, no application/request for issuing "green bonds" has so far been registered with the FRC.

To qualify as “green”, the project that the bond issuer aims to finance must (i) fall within the Green Taxonomy of Mongolia or (ii) be verified as “green” or “environmentally friendly” under internationally recognized standards or guidelines. To the best of the Consultant’s knowledge, no such “green” bonds have been issued. Furthermore, according to the discussions held by the Consultant to various stakeholders, including the FRC, while there may exist potential interest in “green” bonds, no specific plans are in place for them to issue them.

Green Insurance in Mongolia

In addition to a possibility for insurers to invest in “green bonds” within the limits prescribed above, the FRC has enacted a definition of “green insurance”. Specifically, “green insurance” product insures risks deriving from the activities set out in the Green Taxonomy of Mongolia. Furthermore, “green insurance” offering should have the following features:

- Terms and conditions of the green insurance must include specific discounts and incentives (as compared to those of regular the insurance of the same type);
- The insurance contract must stipulate that insurance compensation will be provided within 15 (fifteen) days and as promptly as possible, provided that the insurance event has been evidenced;

An insurer which offers green insurance, and which meets the requirements of the FRC can be issued a “Green Certificate”.*5*

While no insurance firm has so far invested into “green bonds” (due to the lack of market offerings of the latter), some of the Mongolian insurance firms have recently been proactive in introducing innovative products, including in the area of “green”. One such company is Tenger Insurance which since 2022 has been piloting a new product called “Energy Savings Insurance” (ESI) in Mongolia. Under ESI, Tenger Insurance will cover the guaranteed energy savings expected from the use and operation of an energy efficient technology acquired by the client from a technology provider. The

5 Source: “Regulation and Criteria for insurers and Insurance Professionals” of FRC (2019).

guaranteed savings are validated by a third-party independent validation entity which will also act as an arbiter in case of disagreement as to the exact amount of actual energy savings.

Besides above two incentives, there are also multiple green lending programs supported by IFIs/MDBs. Various donors such as ADB, EBRD, FMO, GCF, GIZ or JICA offer green loans via participating local banks.

Case-study*:*

Under JICA's "Two-Step SME Loan" Mongolian SMEs can obtain from participating commercial banks 7% interest rate loans for environmental protection projects with a focus on air pollution reduction.[6]

Similarly, the prevailing interest rate paid by the end-borrowers under the facilities that Khan Bank entered into with EBRD/GCF and FMO-led consortium (*please refer to previous Case study*) ranges between 12%-14,4%, whereas the actual lending cost , according to Khan Bank, is 18,78%-19,47%.

6 https://www.jica.go.jp/mongolia/english/activities/activity09.html

2.2. Incentives for Green Projects

As of date of this Report, there are certain investment Incentives for green projects in Mongolia, which are demand-side incentives i.e., focussed to incentivize the borrowers to do green project development primarily done through tax-incentives.

Indirect Tax Exemptions - Renewable Energy Equipment

Since April 2016, **renewable energy equipment has been exempt from Mongolian customs duties (10%) and VAT (15%).** The list of equipment and spare parts eligible for such exemption is extensive – ranging from wind turbines to PV panels to AC generators. It is both developers (who develop RE projects in Mongolia) and importers (such as suppliers to RE projects in Mongolia) who can benefit from this exemption. Full list of the exempt equipment and spare parts is available on the official GoM website.[7]

Income Tax Exemptions – "Green" Equipment

Income tax is reduced on the sales of equipment which increases efficient use of natural resources or reduces environmental pollution or waste.[8] The list of equipment eligible for tax reduction is broad. For example, it includes, among others, water filtering or purifying machinery, hydraulic turbines and water wheels, appliances for gas fuel etc. Similar to the tax exemption for the sales of equipment in the paragraph immediately above, it is both developers (who are involved in use of natural resources such as mining firms in Mongolia) and importers (such as suppliers) who can benefit from this exemption. That said, the GoM is expected to provide further enabling administrative regulations as to qualifications and eligibility criteria for this particular tax treatment. Full list of the exempt equipment is available on the official GoM website.[9]

Income Tax Deductions

Another tax incentive is **expenses of businesses for increasing and/or rehabilitating water resources in certain geographic areas are tax deductible**[10]. Similar to the tax exemption in the above paragraph, it is both developers (who are involved in use of natural resources such as mining firms in Mongolia) and importers (such as suppliers) who can benefit from this exemption. That said, the GoM is expected to provide further enabling administrative regulations as to qualifications and eligibility criteria for this particular tax treatment, including eligible geographical regions of Mongolia.

ESG and Sustainability Reporting

In addition to tax breaks, Mongolian listed companies (as well as corporates) are **encouraged to report their ESG & sustainability practices, in accordance with the "ESG and Sustainability Reporting**

7 Reference to the text of the GoM resolution on the official GoM website - https://legalinfo.mn/mn/detail?lawId=11839

8 Art.22.5.3 of Law of Mongolia on Corporate Income Tax (2019).

9 Reference to the text of the GoM resolution on the official GoM website https://legalinfo.mn/mn/detail?lawId=210514&showType=1

10 Art.22.5.9 of Law of Mongolia on Corporate Income Tax (2019).

Guidance" published by FRC and MSE in 2022[11]. The "ESG and Sustainability Reporting Guidance" contains a set of guidelines to help Mongolian listed companies, prospective issuers and other interested companies to disclose their sustainability practices. In addition, the Guidance offers an overview of global sustainability reporting frameworks and trends, followed by an 8-step outline of how Mongolian listed companies and other issuers can build the capacity to report on sustainability. The Guidance further suggests a set of key ESG indicators - from environmental to social to industry-specific indicators - that Mongolian companies should consider reporting on. MSE-listed companies are expected to submit their first sustainability reports in 2023. While legally not mandatory, such reporting, if indeed introduced by the publicly listed companies in Mongolia, is expected to contribute to their ability to access "green" financing from ESG and sustainability-focused international investors and lenders.

[11] Available in English at: www.frc.mn/resource/frc/File/2022/08/16/d67ard74qgwc38f9/ENG-ESG%20reporting%20guidance%201.pdf?fbclid=IwAR2isfK1_X8PQat_6uzVOGIV5IvIiHvi7isq9WYdLXNYzrkbg60gbG6q2mA

3. STAKEHOLDER DISCUSSIONS

As part of the KSTA, a number of stakeholder discussions were held with different government agencies/ stakeholders who are part of the green loan lifecycle in Mongolia. Based on those discussions, this chapter provides a list of incentives that have been proposed by these stakeholders for possible implementation in Mongolia, along with certain rationale.

Given below is the list of various stakeholders that were consulted by the KSTA team.

Table 1: Stakeholder Discussions - Green Loan Incentives

#	Meeting date	Organization	Attendees	Designation
1.	14-Dec-22, 10-Mar-23	Bank of Mongolia	Gan-Ochir Doojav	Chief economist
2.	14-Dec-22	Bank of Mongolia	N.Urgamalsuvd	Head of Monetary Policy and Modeling Division, Monetary Policy Department
3.	14-Dec-22, 10-Mar-23	Bank of Mongolia	Munkhbayar Gantumur	Officer of Monetary Policy and Modeling Division, Monetary Policy Department
4.	10-Mar-23	Bank of Mongolia	Ninjin Namkhaijantsan	Senior Supervisor, Banking Policy Division, Banking Resolution and Policy Department
5.	1-Jan-23	Bank of Mongolia	Tsenddorj Dorjpurev	Senior Economist, Research and Statistics Department, Statistics Division
6.	7-Mar-23	Tenger Insurance	Baatarbold Jukov	Chief Retail Insurance Officer
7.	7-Mar-23, 16 Mar-23	XacBank	G.Sarnai	Project Development Officer, Eco-Banking Division
8.	2-Feb-23	Khan Bank	E.Bulganchimeg	Project loan manager (Green finance), Credit Policy and Regulations Department
9.	24-Jan-23	Trade and Development Bank	Nyamsuren Davaatseren	Head of Green Funding Office
10.	22-Dec-22 14-Mar-23	Financial Regulatory Commission of Mongolia	O.Byambasuren	Senior Officer, Policy Coordination Division, Insurance Department
11.	27-May-22	Mongolian Sustainable Finance Association	Nomindari Enkhtur	Chief Executive Officer
12.	9-Mar-23	Mongolian Sustainable Finance Association	Bilegsaikhan Byambadorj	Senior Business Development and Partnership Manager
13.	2-Feb-23	Khan Bank	B.Suvd	Senior project loan manager (Green finance), Policy and Regulations Department

14.	22-Dec-22	Financial Regulatory Commission of Mongolia	N. Narantuya	Senior Officer, Department of Market Research and Development
15.	22-Dec-22	Financial Regulatory Commission of Mongolia	D. Dashnyam	Senior Officer, Savings and Credit Cooperatives Department
16.	22-Dec-22	Financial Regulatory Commission of Mongolia	N. Bayarsaikhan	Senior Officer, Department of Non-Banking Financial Institutions
17.	22-Dec-22	Financial Regulatory Commission of Mongolia	O. Byambasuren	Senior Officer, Insurance Department
18.	22-Dec-22	Financial Regulatory Commission of Mongolia	E. Sainzaya	Officer, Insurance Department
19.	22-Dec-22	Financial Regulatory Commission of Mongolia	O. Zolzaya	Officer, Securities Department
20.	22-Dec-22	Financial Regulatory Commission of Mongolia	T. Enkhtogs	Senior Officer, Securities Department

Based on the stakeholder discussions and information collected, the subsequent sections provides a list of proposed, planned and under consideration incentives for green loans in Mongolia by various key agencies as listed in the table above.

3.1. 2023 Monetary Policy

This section provides a list of incentives that have been notified as part of 2023 Monetary Policy of Bank of Mongolia to promote Green Loans in the country.

Differentiated Risk Weighting

The 2023 Monetary Policy of the BOM provides for a plan to introduce differentiated risk weighting for green loans for the purpose of asset classification (vs. brown assets). Risk-weighted assets are the loans and other assets of a bank, weighted (that is, multiplied by a percentage factor) to reflect their respective level of risk of loss to the bank.

Currently, most regular loans by Mongolian banks are risk-weighted 100% for the purpose of minimum regulatory capital. However, according to its 2023 Monetary Policy, the BOM is considering a differentiated risk-weighting of 50-80% for green loans, in particular loans for eligible energy efficient buildings which would be risk-weighted at or around 50% (currently 100%). If and when such reduction occurs, financial intermediaries will be incentivized to supply more liquidity to the market.

Green Loans – Monitoring and Supervision

In addition, the 2023 Monetary Policy **provides for other measures supporting and strengthening supervision of green loans** such as:

- collect qualitative data with sufficient time series for risk analysis,
- introduce offsite M&E of the risk level of green loans, and
- introduce methodology for risk management of climate financing and green loan.

Carbon Pricing and Carbon Tax

The 2023 Monetary Policy of BOM calls for studies into feasibility of introducing carbon pricing and carbon tax in Mongolia.[12]

Carbon Pricing captures the external costs of GHG emissions, i.e., the costs of emissions - such as damage to crops, health care costs from heat waves and droughts, and loss of property from flooding or wildfires - and ties them to their sources through a "carbon price", usually in the form of a price on the CO2 emitted. Thus, if adopted, instead of dictating who should reduce emissions where and how, a carbon price provides an economic signal to emitters in Mongolia, and allows them to decide to either lower their emissions or continue emitting and paying for their emissions.

Carbon Tax is a tax that emitters must pay for each ton of GHG emissions they emit. Thus, if adopted, Mongolian businesses and consumers will take steps, such as switching fuels or adopting new technologies, to reduce their emissions to avoid paying the carbon tax.

ESG Risk Reporting Methodology

In addition the Monetary Policy, the BOM has published **"Methodology for Assessing and Managing Risks associated with ESG of a Bank"** (the "Methodology"). This is the first time an ESG risk

12 Full text of the 2023 Monetary Policy of BOM is available in Mongolian at https://www.mongolbank.mn/documents/guidelinesproject/2023.pdf

assessment and risk management procedure has been adopted by the BOM. Until it has been published, the local commercial banks relied on internally developed ESG risk assessment procedures. Adoption by the BOM of the Methodology, adopted in Feb 2023, is expected to make the ESG risk assessment practices consistent across all banks in Mongolia. According to the Methodology, the ESG risk assessment of a bank extends to all of its investments, loans and other financial instruments and actions.

3.2. Proposed Recommendations by MSFA

In addition to the policy recommendations by the BOM above, MSFA has submitted to BOM a set of recommendations aimed at accelerating green lending and achieving the target of 10% of the total loans in Mongolia being "green" in 2022. These recommendations propose specific incentives for more green lending by financial intermediaries (compared to general lending), and are listed as below:

1. ***Waive the requirement of the past 12 months for calculating the after-tax income for the purpose of debt-to-income ratio (currently, after-tax income is computed based on the most recent 12 months)***

Rationale:

As a result of the pandemic-caused force majeure, income of many households and micro-entrepreneurs has been interrupted. Such difficulties look to sustain going forward. situation is emerging. The average income of the last 12 months is likely to be lower than the current levels. As such, MSMEs who are attempting to revive their activities and thus applying for loans, would likely fall short of meeting the foregoing requirement.

Historical income does not guarantee actual cash flow to repay the loan, but only serves an indicator of experience and ability to manage the business during economic downturns and recoveries. Since the borrower anyway repays the loan including interest with future income and cash flow, it is appropriate to pay more attention to the ability of the potential borrower to prove future income, business management, and the behaviour of individuals.

It would be more realistic for the bank to evaluate the specifics of the loan product and the customer's creditworthiness using its own credit scoring method and its own criteria, and then decide which timeframe to consider in computing the average income in accordance with the risk appetite and risk tolerance.

2. ***With respect to methods of consumer loan repayment, waive the current method requirement of monthly "even total repayment" or monthly "even principal repayments", instead make repayment of green loans flexible in terms of the repayment period, depending on the borrower's income cycle and circumstances***

Rationale:

The even monthly repayment is not suitable for individuals and MSMEs applying for green lending, especially for those who earn seasonal income, or receive a lump sum payment at the end of a contract period or prefer to repay in uneven instalments.

3. ***Extend term of green lending (currently all consumer loans are capped at 30 months)***

4. ***Increase the debt-to-income ratio to 70% for green consumer loans (currently, the debt-to-income ratio for most consumer loans in Mongolia is 60%),***

Rationale for Recommendations 3 and 4:

Green loans have positive impact on economy, and social (health, education, gender-sensitive employment) and the environment. In addition, cost savings and productivity for the green borrower. Therefore, it is only reasonable to a higher the debt and income ratio for green loans (compared to ordinary loans).

Households living in semi-urban residential areas mostly use coal for heating and cooking. It is necessary to increase the supply of credit designed to incentivize energy savings. But this debt-income ratio restriction is a hindrance. For example, a household with the ability to pay MNT50k each month in loan repayments needs an MNT 2m loan in order to fully insulate the roof of its house. If the household fails any of the requirements, including the foregoing ratio, set by the BoM, the bank will have to reject the loan application. In this situation, the household cannot insulate the roof, will continue polluting, or will end up obtaining a loan from relatively laxly regulated NBFIs at higher interest rates thus facing increased debt burden.

5. ***Lower risk-weighted percentage to 50% for green lending (currently, 100% for most loans), including assets financed by Mongolian Green Finance Corporation or assets falling under Mongolian Green Taxonomy,***

Rationale:

Green loans have comparatively more stringent pre- and post-disbursement monitoring, reporting, and verification requirements and processes. Thus, certain types of risks found in conventions loans are significantly reduced in green lending. Therefore, it is reasonable to weigh the risk of green loans, which are proven to meet the appropriate criteria and standards, at a lower percentage than ordinary loans. In this regard, it is unlikely that new or higher risks will arise in the banking system, and there will be a real policy support for financing the green transition.

6. ***Exclude from the total liabilities the proceeds of long-term green financing sourced from IFIs (for the purpose of liquidity ratio reserve requirements) for the amount maturing after the 2nd year of the tenor***

7. ***Exclude from the mandatory reserves the same proceeds of long-term green financing received from IFIs for the amount maturing after the 2nd year of the tenor ,***

Rationale for Recommendations 6 and 7:

Mandatory reserve and liquidity ability, on the one hand, have the objective of ensuing stability of bank operations. On the other hand, these tools are increasingly used as macro-economic policy mechanisms, including in Mongolia. That is why the following financing sources are currently excluded from the calculation of mandatory reserves in Mongolian commercial banks:

- Mortgage issued by the government through the Bank of Mongolia,
- Discounted loans for cashmere processing and gold mining,
- Sources of low-interest pension loans.

Therefore, it is reasonable to not include the part of a green loan that is repaid after a period following the 2nd year from the funds drawn for the purpose of providing loans that comply with the Green Taxonomy in the calculation of the liquidity ratios and mandatory reserves.

8. ***Make Mongolian Green Finance Corporation eligible to enter into cross-currency swaps with BoM (currently, only commercial banks, IFIs and Government of Mongolia are eligible),***

Rationale:

Mongolian Green Finance Corporation is a public and private partnership which is a wholesale financial institution with the mandate to attract low-cost financing from foreign markets (IFIs and DFIs) and distribute it to domestic end borrowers who meet certain criteria through domestic financial intermediaries in MNT. Therefore, long-term swap agreements of MGFC can be made directly with the

BoM, the loan rate of MGFC for its end borrowers can become competitive compared to cross-currency swaps offered by commercial banks.

9. Make the deposit rate for the cross-currency long-term swap 1% or higher (currently 0.5%)

10. Launch a BoM repo program dedicated to financing green loans,

Rationale for Recommendations 9 and 10:

Issuance of consumer green loans to end borrowers is usually always in MNT (local currency). Also, the financial status of the target segment and the impact on environment, society and economy dictate the need for providing single-digit interest rates for MNT-denominated loans (vs. double digits). However, when the funds drawn from international sources are converted into MNT, the vast different in the USD and MNT exchange rate increases the swap interest costs further pressuring interest rates of loans to end local borrowers. While the BoM's swap interest rate for USD-denominated funds 0.5% for green taxonomy-compliant loans, this figure is not sufficient.

11. Make (i) building of energy-efficient residential houses or (ii) retrofitting of existing houses eligible for BoM's ongoing mortgage finance program (currently, the regulations suggest that only apartments are eligible residential mortgage loans). Also, set the risk-weighted percentage of mortgage risk for i) building energy-efficient residential houses or (ii) buying energy-efficient apartment lower (e.g., 30-40%) compared ordinary (non-green) housing

Rationale:

Nowadays most banks experience shortage of credit resources. In an environment where there is competition for limited credit resources, the banks should be incentivized to finance energy savings by building energy-efficient residential houses or retrofitting existing residential houses. Technologies for conventional housing has been becoming obsolete around the world. Some national regulatory bodies have begun to announce target dates for decommissioning such technology. However, there is a probability that in Mongolia, the existing policy of supporting residential and apartments housing featuring outdated technology will significantly reduce the value of collateral for this type of loan going forward. Accordingly, the asset classification will deteriorate, which will in turn put pressure on the banks' capital.

Therefore, in case of apartments, funds for grey water technology, energy and water consumption savings should be encouraged. In case of residential houses, it is necessary to support credit for buildings with low heat loss.

12. Set the debt-to-income ratio for energy-efficient residential houses at 60% (currently, set at 45% for all types of houses).

Rationale:

Cost of energy-efficient residential houses is higher than ordinary residential houses. As such, the savings in operating costs are longer-term, limiting the amount of credit available to households.

13. Update National Green Taxonomy's categories and areas of activity in line with recent changes in science, technology, policy and regulatory environment, and international standards, and to determine criteria for measuring results

Rationale:

The Green Taxonomy was first developed in 2018 and is used as the primary methodology for categorizing, developing, and reporting green financial products in the banking and finance industry. When the green taxonomy was first developed, it was agreed that the Taxonomy should be reviewed at least every 2 years, and updated and improved, as necessary, in line with the latest changes in science, technology, policy and regulatory environment, and international standards. Accordingly, it is necessary to add some new sectors and activities, to comply with newly created international standards such as the EU Taxonomy, as well as to add indicators for measuring the results of green loans and reporting them. The work has been started by MSFA, MOF, UNDP, and the EU. The team have been working to submit the draft new green (SDG) taxonomy to the Financial Stability Board in November 2022.

14. Develop procedures for identifying, evaluating, verifying, and reporting green loans subject to the above special regulations, and conduct training

Rationale:

The main difference between green loans and ordinary loans is the former's positive impact on environment, society and overall economy. However, the misuse of the definition of "green" as well as "greenwashing" has been increasing in Mongolia and around the world. Therefore, it is necessary to develop the procedures for determining, evaluating, verifying and reporting credit criteria in accordance with the international "Principles of Green Credit", and to organize training related to the implementation of such procedure for banks.

4. KSTA RECOMMENDATIONS

Based on a detailed review of the as-is mapping of incentives as the proposed incentives as per stakeholder discussions, it is pertinent to mentioned that not all proposed incentives may be suitable for implementation as per international best-practice and given the local context in Mongolia.

Hence, this chapter describes KSTA recommendations which can be implemented in Mongolia, along with implementation/ fund flow mechanism & specific case-study examples from other countries as per international best-practices.

The table below provides a summary of recommended incentives for green loans and projects in Mongolia, as elaborated in subsequent sections.

Table 2: Recommendations for Green Loan Incentives in Mongolia

#	Recommendation	Description
1.	*Green Loans Risk Weight Adjustment*	As per international best practice, many countries have adopted risk weight adjustment practices to promote green lending by providing the buffer in the form of lower risk weights allocation under BASEL II, Internal Capital Adequacy Assessment Process requirements by Basel Committee on Banking Supervision framework.
2.	*Micro-prudential regulations under NCAF*	As per international good governance practices, several nations have disclosed their respective workplan and mandates between 2020-22 to practice micro prudential green capital adequacy framework to incentivize the green loans, given by Network for Greening the Financial System (NGFS). Such awareness and workplan mandates could facilitate Mongolian economy integrate climate related risks into prudential supervision to ease green lending process.
3.	*Capital Adequacy Ratio - Advanced Measurement Approach (AMA)*	As a practice, many nations internationally are currently employing or developing climate-related measurement methodologies via central banks and supervisors to find financial intersection of climate risk in their principal activities of lending and borrowing to assess the minimum capital requirements by their central bank, commercial banks and FIs. Awareness and roadmap of such techniques can prove effective for Mongolia too in the long-run.
4.	*Green Quantitative Easing (QE) And Reserve Management*	There is successful international precedence of expansionary monetary policy with a framework of interaction between the world economy and the climate. The same has been used as an effective tool to streamline and fund the green loans by Bank of England. Similar steps could enable Mongolia in long run to impede the green lending space.
5.	*Guarantees for Green Loans*	Green loan guarantees can have a partial or entire coverage of the greenfield investments. International best practices such as by ADB in past to incentivize green lending via guarantee

#	Recommendation	Description
		mechanism to India in solar space, could pave the way forward for LICs such as Mongolia.
6.	*Term Extension for Green Loans*	Term extension may work for Mongolian economy to observe prospective green loan credit penetration via active role of financial institutions and the central bank. Internationally, several countries have successfully implemented the similar process, in the form of soft loan or concessional loan framework worldwide
7.	*Interest Rate Subsidization*	Such practices are adopted by few developing nations to enhance their respective supply-side initiatives under the 'green' loan space. These are covered as 'Green Loan Subsidy' for renewable energy-based assets in the New Renewable Energy (NRE) domain.
8.	*Relaxed Statutory Reserve Requirements*	A green reserve requirement policy would allow commercial banks involved in green lending to hold fewer reserves that bear zero or low interest, against green loans. Such initiatives have been adopted in certain countries and are recommended for Mongolia.
9.	*Higher Cross-currency long-term swap rate*	There are successful effective examples of cross-currency swap arrangements internationally that enable firms managing their respective financial risks related to ESG issues. By enabling the exchange of risks, long term swap derivatives' mechanism provides an effective tool to hedge climate risks (either direct physical risks or related to required financial transition) by reducing the uncertainty on future prices.
10.	*Enhancing National Green Taxonomy Categories*	Enhancements in Mongolian Green Taxonomy, including detailed classification of activities would enable wider dissemination of green loans. There are instances from worldwide taxonomies those have revisited their existing green taxonomies to include different categories and activities to match the international standards.

For each of the proposed recommendation as per table above, the subsequent sections provide a detailed description, implementation mechanism and case study examples to demonstrate the impact of the incentive in promoting green loans, which can be applied in Mongolia.

4.1. Green Loans Risk Weight Adjustment

Many nations across the globe have adopted risk weight adjustment (RWA) practices to promote green lending by providing the buffer in the form of lower risk weights allocation under BASEL II, Internal Capital Adequacy Assessment Process (ICAAP) requirements by Basel Committee on Banking Supervision (BCBS) framework. Similar examples from across the world have facilitated the nations to incentivize green lending/ loans by reducing the risk-weights on green loans vis-à-vis normal loans, under minimum Capital Adequacy Requirements (CAR).

Consideration by the Mongolian Central Bank as to how to loosen certain of these requirements could include:

- revisiting risk weightings based on a more rigorous analysis of project finance categories under the Basel Framework.
- symmetrically introduce a prudential bonus for green assets after assessing the limits.

Implementation Mechanism

Under Standardized Basel II and Basel III requirements -

- Banks must consider risk due to climate factors during client prospecting and origination itself.
    - That means identifying climate friendly projects and sectors proactively and building the portfolio accordingly.
    - That links to new ratios, like green asset ratio, which banks may need to track.

Figure 1: Capital Adequacy Ratio (CAR) Formula

Source: Wall Street

The risk weights for unexpected losses (UL) associated with each supervisory category are:

Strong	Good	Satisfactory	Weak
70%	90%	115%	250%

Probably, all project debt regardless of the assessment of the underlying risk parameters is considered by a Central Bank to be the same and accordingly should carry a standardized risk weighting of above 160%. On first glance a full standardized approach to project finance Risk weighting could result in lower than 160% RW for a renewable energy and green project finance asset.

If this is true, then there is a case to be made to Central bank to reduce the standard Risk weighting by allocating appropriate risk weightings to each and every criterion with justification and notes. This would in many cases a risk weighting significantly lower than 160% and possibly increase the ability of the Commercial Banks in the country to offer non-recourse project finance.

Case Study:

BRAZIL

In 2011, Brazil embedded environmental considerations into the banks' Internal Process of Capital Adequacy Assessment by considering lending exposure to the projects containing environmental and social risks. Eventually, Brazil recommended banks to outline their risk assessment methods and exposure to social and environmental damages into their annual reports in 2017.

4.2. Micro-prudential regulations under NCAF

The objective of micro-prudential regulations under New Capital Adequacy Framework (NCAF) is to keep track of supervisory and micro-prudential practices within the financial industry, to identify leading practices and issue guidance for supervisors on how to incorporate climate and environmental risk within their supervisory framework.

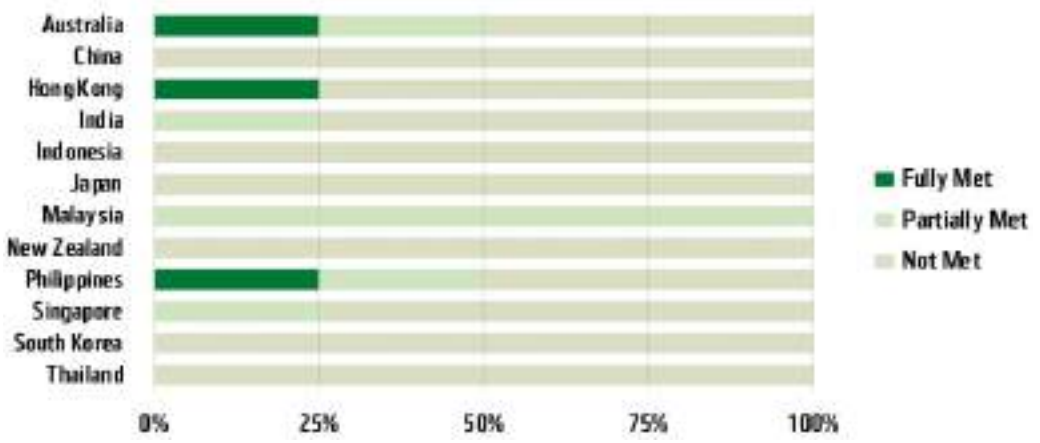
As per international good governance practices, several nations have disclosed their respective workplan and mandates between 2020-22 to practice micro prudential green capital adequacy framework to incentivize the green loans, given by Network for Greening the Financial System (NGFS). Such awareness and workplan mandates could facilitate Mongolian economy integrate climate related risks into prudential supervision to ease green lending process.

Implementation Mechanism

Under micro-prudential regulations, following tasks could enable green adequacy framework to ease the green lending space.

- Keep track of supervisory developments and update the mapping of supervisory practices for integrating climate risks into micro-prudential supervision.
    - By integration into supervisory framework
    - By collaborating with wider stakeholders internationally
- Take stock of current supervisory practices regarding environmental risk specifically.
- Conduct further study on financial risk differential between 'green' and other assets.
- Review and assess existing methodologies to measure environment and climate related financial risks at micro level.

Figure 2: Micro-prudential supervision on climate (Capital and Liquidity)



Source: fulfillment of indicators on supervisory expectations towards banks (micro-prudential policy) on select topics based on the Susreg framework, WWF

Case Studies:

MALAYSIA

The Central Bank of Malaysia has set up a network of about 30 staff members from cross-functional divisions to implement the Bank's plan on sustainable finance. The network includes 17 departments including Islamic Banking and Takaful, Financial Development and Innovation, Development Finance and Inclusion, Banking and Insurance Supervision, Risks Specialists, Prudential Policy, Financial Surveillance, Economics, Monetary Policy, Investment, Centralized Services (including Hospitality and Facility Management) and Finance department.

SINGAPORE

The Monetary Authority of Singapore (MAS), Banca d'Italia, Banco de Espana and the Dubai Financial Services Authority (DFSA) have also set up cross-departmental workgroups. The objective for each of these groups is to combine diverse expertise across the institution to gain a holistic vision, facilitate synergies, and provide coherent answers within all the dimensions of the climate change phenomenon. This will also guarantee transversal support for the definition of the institutions' policy positions on international fora. At Banca d'Italia the working group reports to the Board, while at MAS it reports to a steering committee chaired by the Managing Director of MAS. The Banco de Espana group is chaired by the Deputy Governor's Office and the Financial Stability and Macroprudential Policy Department.

ENGLAND

The climate hub model was implemented by the Bank of England after climate work had been underway for a period of three years. The hub started with four individuals and has since doubled in size; some of the spokes have grown significant 'specialist' groups, particularly in banking and insurance supervision.

4.3. Capital Adequacy Ratio – Advanced Measurement Approach (AMA)

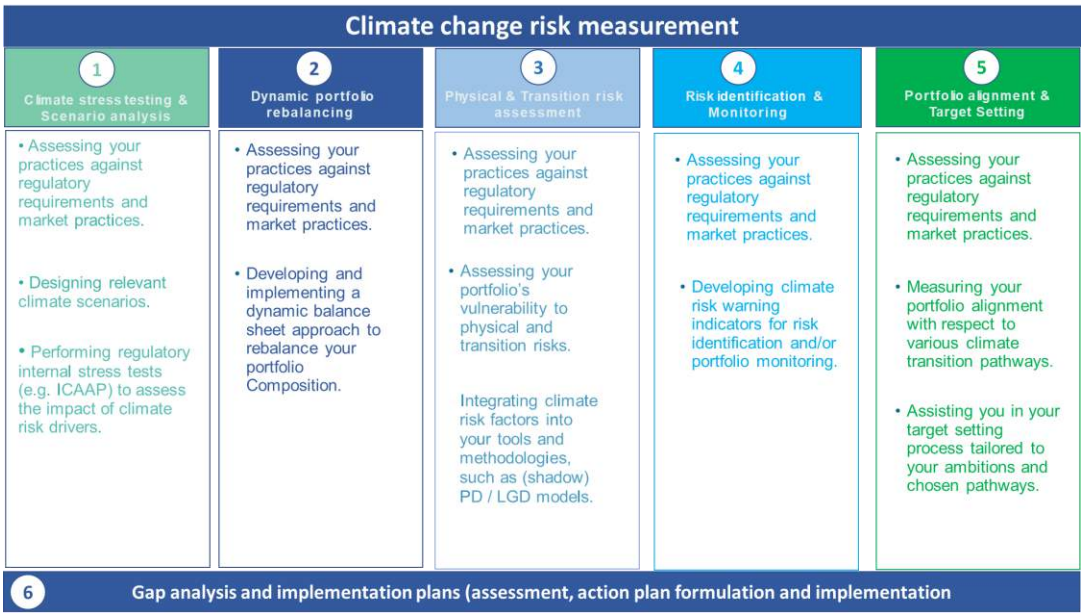
As a practice, many nations internationally are currently employing or developing climate-related measurement methodologies via central banks and supervisors to find financial intersection of climate risk in their principal activities of lending and borrowing to assess the minimum capital requirements by their central bank, commercial banks and FIs. In risk measurement, top-down modelling approaches usually try to estimate risk at the consolidated level (e.g., a consolidated portfolio, consolidated bank, or aggregated banking system) and proportionally allocate risk to the component parts under Advanced Measurement Approach. Awareness and roadmap of such techniques can prove effective for Mongolia too in the long-run.

Implementation Mechanism

Among the risk measurement processes currently being applied by banks and supervisors, some more prominent and conventional practices include risk scores, scenario analysis, stress testing, and sensitivity analysis.

- ***Climate risk scores or ratings*** - Climate risk scores (including heatmaps) rate the climate risk exposure of assets, companies, portfolios, or even countries. Climate risk scores can help banks and supervisors assess the relative climate exposure of existing and prospective credit intermediation.
- ***Scenario analysis*** - Scenario analysis can be performed at different levels of granularity to identify impacts on individual exposures or on portfolios. By examining the effects of a wide range of plausible scenarios, scenario analysis can also assist in quantifying tail risks and can clarify the uncertainties inherent to climate-related risks.
- ***Stress Testing*** - Stress testing is a specific subset of scenario analysis, typically used to evaluate a financial institution's near-term resiliency to economic shocks, often through a capital adequacy target. Typically, when considering solvency, there are two types of stress tests: macroprudential, which measure how financial shocks affect a financial system and may trigger systemic risk, and micro-prudential, which evaluate an individual financial institution's solvency given its portfolio risks.
- ***Sensitivity Analysis*** - Sensitivity analysis has often been used in transition risk evaluation to assess potential effects of a specific climate-related policy on economic outcomes, particularly in research settings to evaluate the range of economic impacts from the implementation of a carbon tax.

Figure 3: Climate Change Risk Assessment



Source: UK Based Risk Evaluation Platform, finalyse.com

Case Studies:

FRANCE

Banking stress tests conducted jointly in 2021 by the EBA, the ECB and national competent authorities, including the ACPR for France, confirmed the resilience of the French and European banking systems. The insurance stress test conducted by EIOPA in 2021 also showed that French insurance groups enjoy solid positions, with comfortable levels of own funds and low liquidity risk.

ENGLAND

The Bank of England (Bank) is returning to the annual cyclical scenario (ACS) stress-test framework in 2022. This follows two years of Covid-19 pandemic crisis-related stress testing and its decision to postpone the test in March following Russia's invasion of Ukraine. The Bank's 2022 ACS will test the resilience of the UK banking system to deep simultaneous recessions in the UK and global economies, large falls in asset prices and higher global interest rates, and a separate stress of misconduct costs.

EUROPE

The European Banking Authority (EBA) is establishing regulatory and supervisory standards for environmental, social, and governance (ESG) risks and has published a multiyear sustainable-finance action plan. The EBA may provide a blueprint for authorities in geographies including the United States, Canada, and Hong Kong, which are also considering incorporating climate risk into their supervisory regimes.

4.4. Green Quantitative Easing (QE) And Reserve Management

Quantitative easing (QE) is an unconventional monetary policy that was first employed by the Bank of Japan in the early 2000s to fight deflation when nominal interest rates already were at the zero lower bound. It essentially consists of large-scale asset purchases from banks and other financial institutions via open market operations.

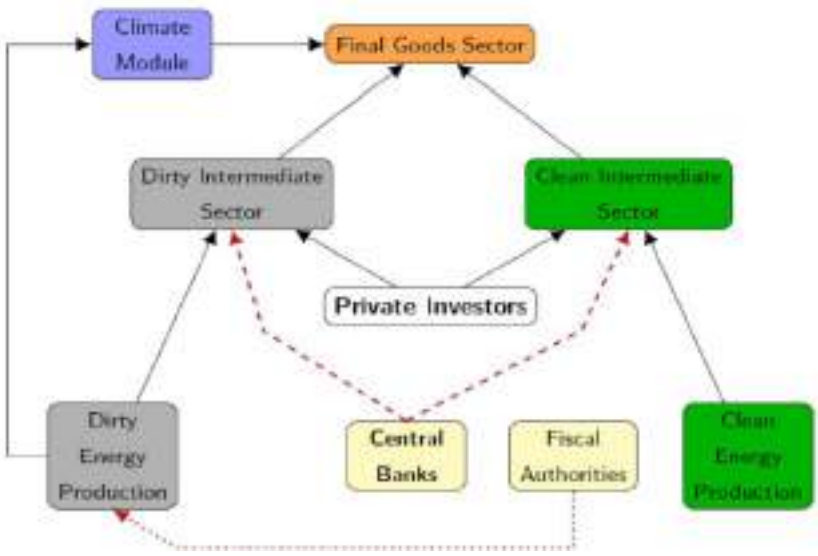
Implementation Mechanism

Asset purchases under QE could be directed toward the purchase of ***green financial assets*** such as green bonds. In the UK, where the Bank of England has pursued QE since January 2009, a discussion of green quantitative easing has unfolded.

QE could be aimed at the green economy - by placing conditions on quantitative easing (QE), which give preference to lending that promotes more environmentally responsible development, the government could help to ensure that the economic recovery does not simply return the UK to its former high-carbon and resource-intensive path of economic growth. At a more general level, central banks could manage their assets according to social impact investment standards.

Green QE impacts the economy through higher costs of dirty capital. There are at least two counteracting forces at play in the model. On the one hand, demand for dirty intermediate goods shrinks owing to a rise in relative prices. On the other hand, this positive impact is partly offset by a substitution of input factors in the production of dirty intermediate goods, particularly from more expensive capital to energy. The model on interaction between the world economy and the climate provides the assessment of effectiveness of green QE in limiting global warming compared with a carbon tax.

Figure 4: Integrated Assessment Model (on QE interaction)



Source: Abiry, et al. (2022)

The above framework could enable the Mongolian economy as a double-pronged approach in long run, to not just enhancing the economic activities overall under expansionary liquidity/ monetary policy, but also to embed the same under green lending supply-side initiative by Govt. of Mongolia along with BoM.

4.5. Guarantees for Green Loans

Loan guarantees offer the lender protection in case the borrower fails to reimburse. Guarantees allows borrowers to obtain cover for their obligations towards a lender in case of nonperformance or default in exchange of a fee. Loan guarantees act as insurance by which a third party - or risk sharing facility – commits to be responsible for all or part of the debt upon an event that triggers such a guarantee, such as loan default. In this type of risk-sharing mechanism, the guarantee provider offers a protection with grant funding serving as warranty, reducing the risk of a project and thus lowering the interest rate charged to the borrower.

Green loan guarantees can have a partial or entire coverage of the greenfield investments. International best practices such as by ADB in past to incentivize green lending via guarantee mechanism to India in solar space, could pave the way forward for LICs such as Mongolia.

They can have a partial or entire coverage of the investment. For example: India Solar Power Generation Guarantee Facility. It's a guarantee facility of USD 150mn (backed by ADB) which covers partial nonpayment by the borrower. It covers a 50% of the value of the loan amount for solar power generation projects.

Advantages

- Potentially higher leverage effect than other instruments.
- Lower default coverage
- Penalty-based incentive system
- Reward-based incentive system
- Can help to build diversified and risk-mitigated portfolios of loans by financial intermediaries.
- Allow for easier access to private sources of finance by loans tailored to specific market needs.

Implementation Mechanism

Guarantees reduce default risk, such policy measures could enable banks to lend to counterparties at reduced rates and at higher volumes. Since, particularly during a crisis, liquidity risk is a major issue, several countries combine these loan guarantees with a central bank liquidity facility through which loans made under the guarantee scheme could be borrowed against for liquidity. With some modifications, such measures were adopted internationally during COVID19 under COVID19 loan guarantee programs and central bank liquidity facilities can be repurposed as climate policy instruments that support the highly capital-intensive renewable energy sector.

- Sustainable Loan Guarantee Programs (SLGP) and Sustainable Loans Guarantee Program Facilities (SLGPF) can be set up in tandem by governments, and
- Central banks could make sustainable investments more attractive by reducing financing costs along two dimensions;

  (1) reducing the default premium on sustainable loans, and

  (2) reducing the liquidity premium.

A high liquidity premium can be a serious issue due to the large amounts of upfront capital necessary to set up green energy generation or other mitigation measures. Upfront investment in wind and PV farms make up over 80% of lifecycle investment whereas those of coal and gas are about 65% and 32% respectively.

Case Studies:

Green Guarantee Company

At the recent annual meeting of the World Economic Forum in Davos, USAID administrator Samantha Power announced that one of the first beneficiaries of the new Enterprises for Development, Growth, and Empowerment (EDGE) Fund will be the Green Guarantee Company. With the investment announced in Davos, USAID joins other partners supporting the Green Guarantee Company such as the UK's Foreign, Commonwealth and Development Office, which provides technical assistance through its Mobilist Global programme.

Also, the Green Climate Fund – the world's largest climate fund - recently approved an initial equity investment of $40.5m, with further investments of up to $82.5m as the Green Guarantee Company scales up.

In return, the Green Guarantee Company will provide guarantees to mobilize more than $1.6bn of climate finance in the Green Climate Fund's host countries - leveraging the fund's investment more than twentyfold. These bonds will finance climate adaptation projects such as flood protection, and climate mitigation initiatives such as electric buses or renewable energy.

The Currency Exchange Fund (TCX)

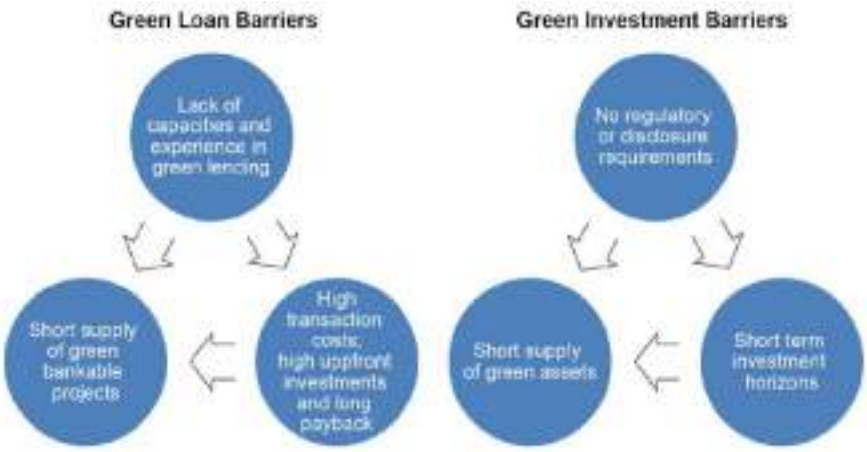
Last December, Amsterdam-based The Currency Exchange Fund (TCX) - which provides solutions to currency risks and protects the financial stability of borrowers in emerging markets -announced that the EU had approved financial guarantees of €325.75m.

This was followed by another announcement in January of a new EU allocation of €80m. Together with an already existing European credit facility, the overall EU financial contribution to TCX now amounts to around €570m.

4.6. Term Extension for Green Loans

This recommendation may work for Mongolian economy to observe prospective Green loan credit penetration via active role of financial institutions (FIs) and the central bank. Several countries have implemented successfully the similar process, in the form of soft loan or concessional loan framework worldwide. Soft loan or Concessional loans are provided by a FI at favorable lending conditions, including lower interest rates and/ or longer repayment schedules. International development funds or multilateral development banks under their development mission can potentially offer such financial instruments to lower down the financing cost of e-buses.

Figure 5: Green Loans and Green Investments - Key barriers



Source: ADB Working Paper 814

Implementation Mechanism

In an ideal framework, the same could be facilitated by a financial intermediary via smooth 'access to credit'. There is a precedence that a development bank could be an effective tool to carry out soft loans to smaller companies to access the credit as long as such banks refrain from lending directly to firms and concentrate their efforts on channelling long term resources through financial intermediaries. Therefore, such framework could same way enable Mongolian economy to promote easy access and wider reach to link to the green loan space.

Figure 6: Green Investment Mechanism

Source: ADB Working Paper 866

Case Studies:

BANGLADESH

A 'revolving fund' of USD 26 mn was set up under the green re-financing scheme in Bangladesh in 2009 to disburse low interest loans to over 50 renewable energy and green industries. Further, an additional fund of USD 200 mn was set up for the leather-textile industry for switching to green technology in 2016. Since 2015, Bangladesh mandated the commercial banks to allocate at least 5 per cent of their lending to the renewable energy sector and other green technologies (Volz, 2018).

COLOMBIA

In 2010 Colombia presented its investment plan to the Clean Technology Fund (CTF) to obtain support for transformational projects that will lower carbon emissions. In this plan, US$40 million were assigned to the Integrated Public Transportation System (SITP) of Bogota, to be implemented by the IADB. The main objective of SITP was to improve public transportation in Bogotá. To fund purchase of clean technology buses (hybrid and e-bus) under SITP, the Inter-American Development Bank (IADB) had offered $40 million concessional loan to Banco de Comercio Exterior de Colombia S.A. (Bancoldex - The Colombia's National Development Bank) at interest rate of 0.25% with grace period of 10 years and amortization period of 30 years. The Republic of Columbia was guarantor for the loan amount. Under this concessional loan program, Bancoldex have extended the loan provided by IADB to the local financial institutions (IFL), which in turn had directly finance SITP concessionaires' firms through credit lines. Under this program, Bancoldex and the IFLs had co-finance each one of the vehicles in equal parts. This means that the US$40 million of this program had leverage an equal amount, for a total of US$80 million. Loan was offered with attractive financial conditions and contributed to compensate the price difference regarding the starting cost of clean technologies.

INDIA

In India, the second largest bank (after Central Bank of the country), the SBI (State Bank of India) has introduced a 'green car loans' scheme for electric vehicles with 20 basis points lower interest rate and longer repayment window, compared to the existing car loans (Jain, 2020). The Government has also brought in a Production Linked Incentive (PLI) Scheme for manufacturing of high efficiency modules in the arena of renewable energy.

4.7. Interest Rate Subsidization

Such practices are adopted by few developing nations internationally to enhance their respective green loan space. These are covered as 'Green Loan Subsidy' for renewable energy-based projects/ assets in the New Renewable Energy (NRE) domain. Energy efficient housing loans/ Retro-fitment facility subsidization could further facilitate Mongolian government and economy to enhance the green lending exposure.

Implementation Mechanism

Several multilateral agencies extend green loans to the renewable energy project developers that bear low interest rates. The funding is routed through various modes, such as direct lending and lending through various financial intermediaries such as providing various lines of credits to NBFCs, and underwriting of debts etc. Such agencies have used the National Clean Energy & Environment Fund (NCEEF) to provide subsidized debt at a lower rate of interest to renewable energy projects through select banks. These often sources funds from international agencies and banks to provide such loans for renewable energy projects.

Such interest subsidy programs are often steered and implemented by central banks or large commercial banks, with funding support from multilateral agencies like ADB, The World Bank, EIB etc. primarily to support clean energy transition.

Case Studies:

INDIA

In India, the Ministry of New and Renewable Energy (MNRE) offers an interest subsidy to borrowers who take out green loans for renewable energy projects. The subsidy is up to 2.5% of the interest rate charged by the lender, with a maximum subsidy of INR 10 lakh (approximately USD 14,000). This reduces the cost of borrowing for borrowers and encourages them to invest in renewable energy projects.

Additionally, the Indian Central Bank (the Reserve Bank of India) has recently included the small renewable energy sector under its Priority Sector Lending (PSL) scheme in 2015 under its proactive policy on climate risk and sustainable finance. Under this scheme, firms in renewable energy sector are eligible for loans up to 30 crore INR (increased from 15 Crore INR since September 4, 2020) while the households are eligible for loans up to 10 lakh INR for investing into renewable energy. In September 2019, India announced a target to reach 450 GW of renewable energy generation by 2030.

RBI has further included the small renewable energy sector under its Priority Sector Lending (PSL) scheme in 2015. Under this scheme, firms in renewable energy sector13 are eligible for loans up to ₹ 30 crore (increased from ₹ 15 Crore since September 4, 2020) while the households are eligible for loans up to ₹ 10 lakh for investing into renewable energy. In September 2019, India announced a target to reach 450 GW of renewable energy generation by 2030.

CHINA

In China, the government provides interest subsidies to borrowers who take out energy efficiency loans for residential and commercial buildings. The subsidies cover up to 50% of the interest rate charged by the lender, with a maximum subsidy of RMB 10,000 (approximately USD 1,500) per loan.

This reduces the cost of borrowing for borrowers and encourages them to invest in energy-efficient upgrades for their buildings. According to a case study by the International Finance Corporation (IFC), this subsidy program has led to the issuance of over 5 million energy efficiency loans, with a total value of RMB 65 billion (approximately USD 10 billion) as of 2017.

4.8. Relaxed Statutory Reserve Requirements

Recommendations by MSFA on relaxed tenor and statutory reserve requirements for green loan financing. It is observed that compulsory reserve requirements (as the share of deposits) that commercial banks must hold their assets; have been completely abolished in many advanced economies but are still part of the policy framework in EMDC economies. A green reserve requirement policy would allow banks to hold fewer reserves that bear zero or low interest, against green loans. Such initiatives could be a welcoming step for a LIC like Mongolia.

Implementation Mechanism

The statutory reserve requirement (SRR) is an instrument to manage liquidity. Banking institutions are required to maintain balances in their SRR accounts, equivalent to a certain proportion of their eligible liabilities (these proportions being the SRR rate). The SRR rate may be raised to manage the significant build-up of liquidity which may result in financial imbalances and create risk to financial stability.

Reserve requirements have a significant impact on banks' ability to create credit and thereby also an economy's money stock. If the central bank lowers the reserve requirement, banks can increase their lending. Allowing lower required reserve rates on privileged green assets would be a way of favoring green investments over conventional investments. Conversely, the bank may lower the SRR, if necessary, to support the transmission of monetary policy rate in comparison to retail consumer banking rates.

Case Study:

LEBANON

Such a policy where banks with a higher share of green lending are subject to lower reserve requirements has been introduced in 2010 by the Banque du Liban, the central bank of Lebanon (BDL 2010). The stated target of Banque du Liban is to "facilitate financing investments in specific economic sectors by exempting banks from part of the required reserve requirement to finance these projects at low cost" (BDL 2009). Together with the central bank, the Lebanese Center for Energy Conservation (LCEC), an agency affiliated to the Lebanese Ministry of Energy and Water, implemented a National Energy Efficiency and Renewable Energy Action (NEEREA) scheme aimed "at providing cheap credit to the private sector for projects related to renewable energy production and energy efficiency in buildings". In essence, the Banque du Liban supports green credits by lowering the reserve requirements of commercial banks by an amount of 100-150% of the loan value if the bank's customer can provide a certificate from the LCEC that confirms the energy savings potential of the financed project.

4.9. Higher Cross-currency long-term swap rate

There are successful effective examples of cross-currency swap arrangements across the globe that enables firms managing their respective financial risks related to ESG issues. By enabling the exchange of risks, long term swap derivatives' mechanism provides an effective tool to hedge climate risks (either direct physical risks or related to required financial transition) by reducing the uncertainty on future prices. Similar initiatives are already in-effect in Mongolia by BoM @ 0.5% vis-à-vis proposed scenario with impact assessment of increased coverage of hedging cost up to 2%, to be continued.

Implementation Mechanism

Cross-currency swap derivatives hedge risks associated with sustainable investments. In other words, this provides a shield to a portfolio from climate or environmental risk and transform erratic cash flows into predictable sources of return. For instance, ESG derivatives offer a liquid and cost-efficient alternative for managing undesired sustainability risks and integrating ESG into investment decision-making.

- A bank can use derivatives to manage the credit risk of counterparties whose financial results may suffer because of climate change or whose viability might be threatened.
- In that respect, Credit Default Swap (CDS) can serve two different purposes:
  - i) to hedge future potential losses that would be realized following the occurrence of a catastrophic event (that leads to bankruptcies/defaults); and
  - ii) to hedge the risk of changes in the market value of ESG bonds/loans' obligations, resulting from the market's expectations on future potential losses/damages and other market factors.

  For example, by entering a cross-currency swap (with a bank) in connection to its SDG-linked bond or loan, an electricity company could hedge the exchange rate and interest rate risk of its new investment in a renewable energy generation capacity and thus ensure its emissions target.

An asset manager specializing in commercial and residential mortgage-backed securities may be willing to use derivatives as an interest rate duration hedge to combat prepayment risk (e.g., from an earthquake, storm or hurricane) in its portfolio.

The portfolio manager of a fund that is denominated in one currency and invests in commodities/financial securities denominated in another, may want to use foreign exchange derivatives to mitigate the foreign exchange risk that arises from potential extreme weather phenomena that can cause unexpected swings in foreign exchange rates.

An example of tripartite debt swap*13* is indicated pictorially in figure below.

13 Tripartite swaps involve buybacks of privately held debt financed by donors and/or new lenders, usually intermediated by an international nongovernmental organization (NGO), conditional on nature- or climate-related policy actions and/or investments. In the most common type of operation the NGO lends the funds to the debtor country at below-market interest rates, on condition that (1) the debtor uses the funds to buyback commercial debt at a discount, and (2) a portion of the resulting debt relief (the difference between the cost of the retired commercial debt and the new debt to the NGO) is used to fund climate-related actions or investments.

Figure 7: Structure of a Tripartite Debt Swap

Source: IMF, 2022 Working Paper

Case Studies:

CENTRAL AMERICA

In Belize (2001) and Panama (2003), the US government and The Nature Conservancy (TNC) shared the costs of debt swaps involving the reduction of US bilateral debt, with TNC providing a grant that matched a portion of the US government's debt reduction. In the case Belize (2021), the US Development Finance Corporation provided political risks insurance for a "blue loan" extended by a TNC subsidiary to Belize, which significantly reduced the credit risk of a "blue bond" used to finance the loan.

The Belize 2021 restructuring was a "tripartite plus" transaction involving the government of Belize, TNC, the US Development Finance Corporation (USDFC), commercial creditors holding a sovereign bond with face value of $553 million (about 30 percent of GDP), and providers of new market finance. Using the proceeds of a "blue bond" issued to the market, a subsidiary of TNC arranged a "blue loan" to the Belize government to finance a bond-for-cash exchange at 55 cents per dollar of face value. About 85 percent of the bondholders accepted the offer, but thanks to a collective action clause, the bond was exchanged in full. On its part, Belize agreed to use part of the debt relief to pre-fund a $23.4 million endowment supporting marine conservation. It also committed to spending $4.2 million per year on marine conservation and to expand its protected ocean area from about 16 percent to 30 percent by 2026.

AFRICA

The 2015 Seychelles transaction involved the government of Seychelles and TNC to buy back $21.6 million of public bilateral debt, primarily to Paris Club creditors, for $20.2 million (a discount of 6.5 percent). The Seychelles government used private philanthropic funding and loan capital raised by TNC's NatureVest conservation investment unit to buy the debt through a newly established Seychelles Conservation and Climate Adaptation Trust (SeyCCAT). In return, the government issued two promissory notes amounting to the same $21.6 million, to pay off the TNC loan as well as to endow SeyCCAT. SeyCCAT became the new owner of the debt, to which the government pays back over a longer tenure, providing a cash-flow relief on repayments. The government committed to protect 30 percent of its waters, protect 15 percent of its high biodiversity areas, and adopt a marine spatial plan to guide the update of coastal zone management, fisheries, and marine policies. Since 2015, in line with its commitment under the debt swap, Seychelles has progressed from protecting 0.04 percent to 30 percent of its national waters.

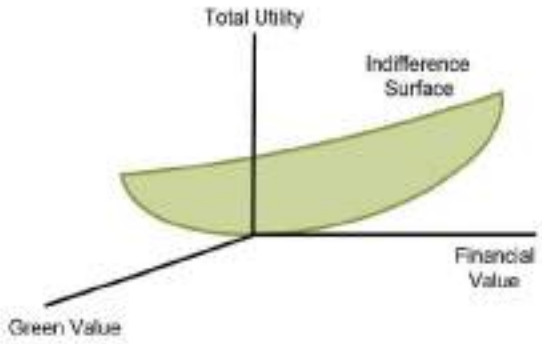
EGYPT

Egypt is one of the countries that has had successful debt for development swaps with European countries. It is a leading candidate to participate in the United Nations Economic and Social Commission for Western Asia's Climate-SDG Debt Swap Initiative, which was launched in 2020. It is recommended that Egypt leverage its experience with debt-for-development swaps, undertaken with Germany and Italy, and leverage the UN ESCWA initiative to finance climate and sustainable development initiatives using debt-for-nature and debt-for-climate swaps. Having previous experiences would ease the process of agreeing on environmental debt swaps. Other countries in the MENA region, such as Jordan and Tunisia, are considering debt-for-nature swaps. The debt relief is expected to increase spending on climate change adaptation projects.

4.10. Enhancing National Green Taxonomy Categories

Such revisions are visionary to road ahead for Mongolian economy in the green loan incentivization. There are instances from worldwide taxonomies those have revisited their existing green taxonomies to include different categories and activities to match the international standards.

Figure 8: Utility of Green Investment

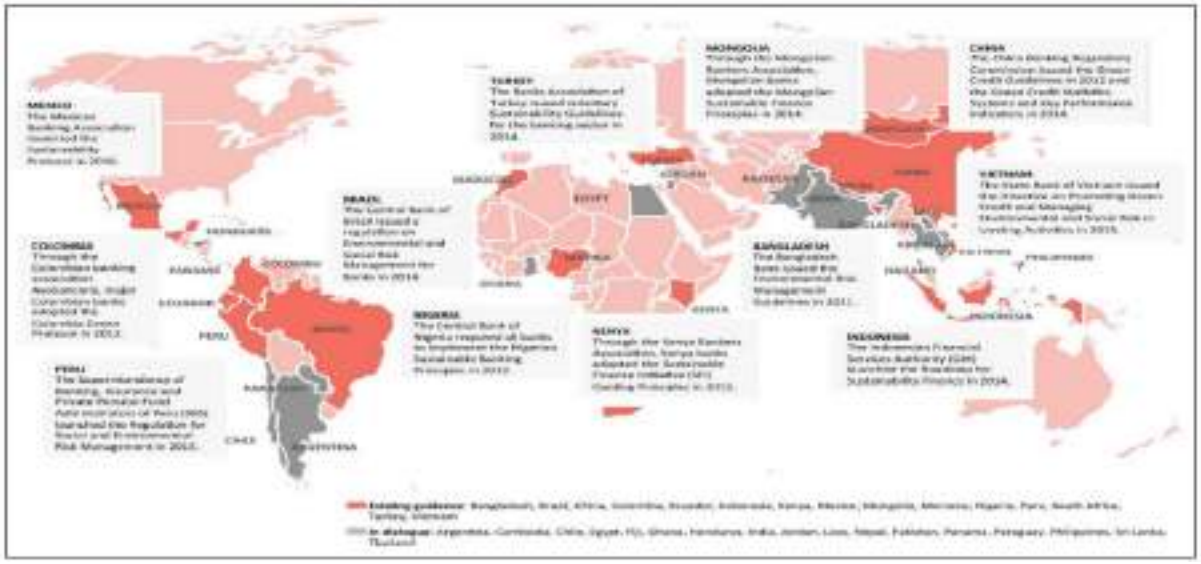


Source: ADB Working Paper 866

Implementation Mechanism

A green taxonomy will reduce the incidence of information asymmetry, rule out plural interpretations of green finance, and minimize the risk of greenwashing. It will provide a transparent understanding of the environmental footprint of economic activities underlying investments. Such adaptation has helped LICs and LMICs to effectively implement a successful green taxonomy that incentivizes the green loans. Mongolia could also adopt the same to regularly revisit and embed the existing taxonomy to entail revised categories and activities inclusion from time to time.

Figure 9: Sustainable Banking Network Members & Countries (introduced green finance guidelines & regulations, *ADB WP 814*)



Case Study:

SINGAPORE

In 2022, Singapore's Green Finance Industry Taskforce (GFIT) has published a second consultation paper on its proposed taxonomy for Singapore-based financial institutions (Singapore Taxonomy) that aims to provide a common framework for classification of economic activities upon which financial products and services can be built and combat greenwashing by setting out definitive criteria for greenness in Singapore. A key purpose of developing the Singapore Taxonomy is to encourage the flow of capital to support the low carbon transition needed to avoid catastrophic climate change, as well as the environmental objectives of Singapore and the ASEAN nations, which are serviced by Singapore-based financial institutions. The Singapore Taxonomy is drafted to be consistent and compatible with other taxonomies to ensure interoperability, particularly the EU Taxonomy and the ASEAN Taxonomy. In this paper, GFIT proposes activity-level criteria and thresholds for three of the eight focus sectors (Energy, Transport and Buildings) and for only one of the environmental objectives (Climate Change Mitigation). These three sectors were determined to have the highest environmental impact in Singapore, which collectively account for around 90% of ASEAN greenhouse gas emissions.

Taxonomy, an economic activity can be classified as green, amber, or red, which denotes a different level of contribution to climate change mitigation as follows:

i) Green (environmentally sustainable): activities that contribute substantially to climate change mitigation by operating at net zero, or are on a pathway to net zero by 2050;
ii) Amber (transition): activities that are either transitioning towards green within a certain time frame, or facilitating significant emissions reductions in the short term; and,
iii) Red (harmful): harmful activities that are not currently compatible with a net zero trajectory

5. Concluding Remarks

As part of the Knowledge and Support Technical Assistance (KSTA) by The Asian Development Bank, this report aims to contribute towards enhancement of the Green Finance deployment in Mongolia and support implementation of the Mongolia Sustainable Finance Roadmap in the country. This TA aims to support the Government of Mongolia in advancing the green finance policy and regulatory framework and in undertaking capacity development to enhance capability to develop green finance projects and products.

As per the objectives of the Report, a set of ten (10) recommendations have been provided for consideration by Ministry of Finance, Bank of Mongolia and other relevant stakeholders to increase the share of green loans in the country to 10% of the total loan portfolio of commercial banks and NBFCs by 2030.

These recommendations are based on international best practices, and the Report provides an explanation regarding the implementation mechanism and case studies from across the globe to enhance the understanding of these implementation mechanisms.