# Sustainable Finance Policy for Banks and FIs (Draft)



Bangladesh Bank Sustainable Finance Department

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## **Sustainable Finance Policy for Banks and FIs**

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## Preamble

Sustainability is the issue never ever be compromised with anything. Where ever we go, where ever we may be, if we are there, if we exist, if anything persist it is because of sustainability. It is our struggle, it is our untiring effort, the best we can do for the survival on earth, the contribution we can minimize pollution, environmental threats, resilience to climate change with respect to climate change mitigation and climate change adaptation; resilience to inequality, imbalance, fight against all evils, inconsistency, corruption, fight for helpless, distressed, non privileged, the CSR community investment with a view to preserving the basic rights of human being, addressing gender equity for women empowerment. Ensuring food security, establishing green building and green industries, sandwich panels for living of all coastal peoples, impactful investment and so many footmarks, achievements, measures- all these for future generation, for the every breath they will take. The world at large is now experiencing the devastating effects of the global climate crisis including droughts, floods, tsunami, water scarcity, and rising sea level. These consequences of climate change threaten the sustainable living on this planet which calls for an urgent and collective response from both developed and developing nations especially countries like Bangladesh. On that standpoint, we need to take necessary steps for our sustainability in the long run.

Sustainability in this context means the quality of not being harmful to the environment or depleting natural resources, and thereby supporting long-term ecological, social balance and governance (ESG). To attain the global targets set through the Paris Agreement and the broader United Nations Sustainable Development Goals (SDGs), Bangladesh Bank (BB) has started this Sustainable Finance Policy initiative. The idea behind this initiative is that the financial service sector, Banks & FIs, as important economic player, must make an appropriate contribution to sustainability. Sustainable Finance needs a harmonized and sound policy and regulatory framework that ensures clarity of purpose, protects consumers, supports market development, and facilitates transition in key economic sectors. Sustainable Finance Policy has not been confined to only green taxonomy which includes green banking activities, green finance policy, ESDD, utilization of Climate Risk Fund, internal environmental management including carbon footprint measurements, green marketing, disclosures etc. but also Sustainable Taxonomy covering Sustainable Agriculture, CMSME, Socially Responsible financing with respect to sustainability, Identification process of Sustainable Linked Finance, R&D for Sustainable Product Innovation, Marketing, Awareness, Capacity Building, and Sustainable Finance disclosure for Banks & FIs etc has been ascertained in this initiative.

Sustainable Finance Policy for Banks and FIs has been structurally arranged in six chapters where Chapter A contains Introduction and Rationale, Chapter B and C cover Sustainable Taxonomy and Green Taxonomy respectively, Chapter D includes Target of Green Finance and Sustainable Finance, Chapter E states Exclusion List and Inclusion Criteria for inclusion of new products/projects/initiatives for Sustainable Finance, Chapter F about Conclusion and lastly

characteristics of Green Featured Buildings and a List of Applicable National Regulations & International Treaties has been incorporated as Annexure in Chapter G.

Sustainable Finance Policy does not give guarantee to include all sectors/products/projects/ initiatives those linked to sustainability. But certainly there is a thirst of tracking and hunting sustainable linked products/projects/initiatives through proper justification and a standard identification process to include green ones along with Sustainable Agriculture, CMSME and Socially Responsible Finance(SRF) Products/Projects/Initiatives deem fit on their existing recognition and standard. Sustainable Finance Department of Bangladesh Bank has taken an effort to prioritize their contribution towards sustainability with respect to environmental, social, economic and governance issues those are in conformity with sustainable Development Strategy, Sustainable Development Goals (SDGs), Perspective Plans (2010-2021), recent 8th Five Year Plan, Govt. issued Rules/ Regulations/Guidelines/Instructions /Notifications and nevertheless international benchmark/norms/standard. **Message from Governor** 

(To be inserted)

Fazle Kabir

**Message from Deputy Governor** 

(To be inserted)

Ahmed Jamal

**Message from Executive Director** 

(To be inserted)

Mohd. Humayun Kabir

Foreword by Team Leader

(To be inserted)

Khondkar Morshed Millat

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# **List of Abbreviations**

| ESEG            | Environmental, Social, Economic and Governance                   |
|-----------------|--|
| ESG             | Environmental, Social and Governance                             |
| CSR             | Corporate Social Responsibility                                  |
| CMSME           | Cottage, Micro, Small & Medium Enterprises                       |
| SRF             | Socially Responsible Finance                                     |
| SDGs            | Sustainable Development Goals                                    |
| R&D             | Research and Development   |
| GoB             | Government of Bangladesh   |
| BB              | Bangladesh Bank  |
| BSEC            | The Bangladesh Securities and Exchange Commission                |
| NBR             | National Board of Revenue  |
| IDRA            | Insurance Development and Regulatory Authority of Bangladesh     |
| DSE             | Dhaka Stock Exchange   |
| CSE             | Chittagong Stock Exchange  |
| BIFFL           | Bangladesh Infrastructure Finance Fund Limited                   |
| IDCOL           | Infrastructure Development Company Limited                       |
| SMESPD          | SME and Special Programs Department                              |
| MFI             | Micro Credit Financial Institution                               |
| MRA             | Micro Credit Regulatory Authority                                |
| ICT             | Information and Communication Technology                         |
| USGBC           | U.S. Green Building Council                                      |
| LEED            | Leadership in Energy and Environmental Design                    |
| BREEAM          | Building Research Establishment Environmental Assessment Method  |
| CASBEE          | Comprehensive Assessment System for Built Environment Efficiency |
| EDGE            | Excellence in Design for Greater Efficiencies                    |
| GRIHA           | Green Rating for Integrated Habitat Assessment                   |
| SREDA           | Sustainable and Renewable Energy Development Authority           |
| ESRM            | Environmental & Social Risk Management                           |
| BoD             |  |
| MANCOM          |  |
| MoEF&CC         | Ministry of Environment, Forest and Climate Change               |
| DoE             | Department of Environment  |
| NGO             | Non-Governmental Organizations                                   |
| ETP             | Effluent Treatment Plant   |
| CO <sub>2</sub> | Carbon dioxide   |
| GFG             | Green House Gas  |

## A. Part-1 Sustainable Finance

1. Introduction: Sustainable finance refers to any form of financial service, including investment, insurance, banking, accounting, trading and financial advice integrating environmental, social, economic and governance (ESEG) criteria into the business or investment decisions for the lasting benefit of both clients and society at large. Activities that fall under the heading of sustainable finance, to name just a few, include sustainable funds, green bonds, impact investing, microfinance, active ownership, credits for sustainable projects and development of the whole financial system in a more sustainable way. Sustainable finance is often understood both as 'doing good and doing well'. The former is about ensuring finance improves financial resilience and stability in the management of short-term shocks and the longterm transition to a low carbon, resource-efficient and socially-inclusive economy. The later is a subset of this where sustainable finance is about doing finance well through enhanced transparency, better risk management and improved governance processes that consider environmental and social factors in lending, insurance and investment decision-making. Sustainable finance includes a strong green finance component that aims to support economic growth while (i) reducing pressures on the environment (ii) addressing green-house gas emissions and tackling pollution (iii) minimizing waste and improving efficiency in the use of natural resources. Sustainable Finance activities stand on Green Banking, CSR and Social Inclusive activities with respect to sustainability. CSR can be defined as the policies and practices included in business operations aimed at maximizing positive impacts on society, and which eliminate or minimize any negative consequences for the society or environment. Social considerations may refer to issues of inequality, inclusiveness, labor relations, investment in human capital and communities, as well as human rights issues. The governance of public and private institutions, including management structures, employee relations and executive remuneration, plays a fundamental role in ensuring the inclusion of social and environmental considerations in the decision-making process. Sustainable Finance exists in Sustainable Finance Framework; more precisely Sustainable Finance Taxonomy that includes Green Taxonomy and other parameters/indicators/factors in a set of activities dedicated to building Sustainable Finance. Sustainable Finance includes Green Finance or in other way Green Finance is a subset of a wider definition of Sustainable Finance. Sustainable Finance Policy does not give guarantee to include all sectors/products/projects/ initiatives those linked to sustainability. But certainly there is a thirst of tracking and hunting sustainable linked products/projects/initiatives through proper justification and a standard identification process to include green ones along with sustainable Agriculture, **CMSME** Socially Responsible Finance(SRF) and Products/projects/initiatives deem fit on their existing recognition and standard. Sustainable Finance Department of Bangladesh Bank has taken an effort to prioritize of the priorities based on their contribution towards sustainability with respect to environmental, social, economic and governance issues those are in conformity with Sustainable Development Goals (SDGs), Perspective Plans (2010-2021), recent 8th Five Year Plan, Govt. issued Rules/

Regulations/Guidelines/Instructions /Notifications and nevertheless international benchmark/ norms/standard.

**2. Rationale:** Sustainable Finance is for sustainability considerations into its financial policy framework in order to mobilize finance for sustainable growth. Monetary Policy of Bangladesh Bank ingrains priority on Green Finance as a part of Sustainable Finance.

Sustainable Finance is a work stream to support the delivery on the objectives of Green Products/Projects/Initiatives by channeling private investment into the transition to a climate-neutral, climate-resilient, low-carbon, more resource-efficient, green, competitive and inclusive sustainable economy. It aims to build a financial system that supports sustainable growth. Sustainable Finance Strategy for Bangladesh should be in such a manner that aiming to Bangladesh move towards a climate neutral country by around 2050.

Sustainable Finance has a key role to play in mobilizing the necessary capital to deliver on the policy objectives as national and international commitments on climate and sustainability objectives. It has to go with the UN 2030 agenda and SDGs and the Paris Climate Agreement. It has to go with the 8th 5YR plan and other perspective plans.

Sustainable Finance for the investments towards more sustainable technologies and businesses, finance growth in a sustainable manner over the long-term and contribute to the creation of a low-carbon, climate resilient and circular economy.

The concern for environmental sustainability and inclusive growth has given mass recognition to the concept of corporate social responsibility and inclusive finance. The potential benefits of the concept has gained the interest of the regulatory authorities, society, NGOs, employees, customers as well as the international bodies to the issue. In this regard, this concern for environmental sustainability and inclusive growth by the banks & FIs has given rise to concept of Sustainable Finance in Bangladesh. In an emerging economy like Bangladesh, environmental management needs to be the key focus area of the business fraternity and especially the banking industry being the major intermediary. Addressing environmental and social risks associated with financing activities by banks/FIs is a 'must do' step in a overall Credit Rating for Credit approval, stricter monitoring there after disbursement and evaluation. Accordingly, Bangladesh Bank has also integrated issues of socially responsible initiatives along with core activities of banks/FIs driving towards sustainable Finance strategies.

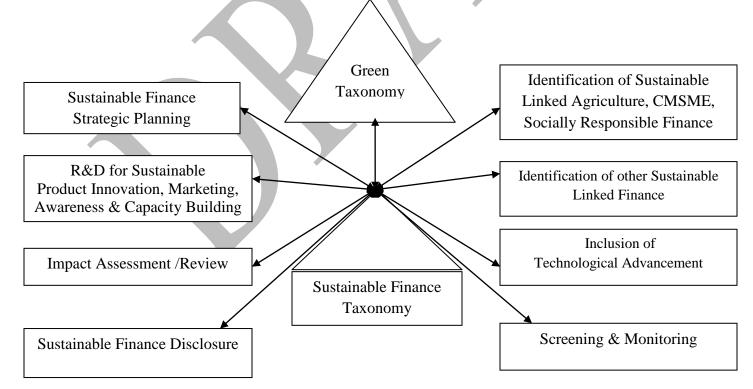
## **B.** Part-2 Sustainable Finance Taxonomy

**1. Sustainable Finance** Taxonomy is a structured mechanism for identifying and recognizing a product/a project/an initiative as sustainable one, not only belongs to green but other products belong to Agriculture, CMSME or Socially Responsible Financing Category with respect to sustainability. Sustainable Finance Taxonomy Includes not only Green Taxonomy but also Sustainable Finance Policy including CSR Policy, Economic and Governance(Good Governance and Green Governance), Green Finance based on (i) Climate Change Mitigation (ii) Climate Change Adaptation (iii) Other Environmental sustainable Implementations and Impact on Inclusive Sustainable Green Growth.

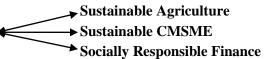
#### 2. Objectivity/Focus/Purpose of Sustainable Finance Taxonomy

The world at large is experiencing the devastating effects of the global climate crisis including droughts, floods, tsunami, water scarcity, and rising sea level. These consequences of climate change threaten the sustainable living on this planet which calls for an urgent and collective response from both developed and developing nations especially countries vulnerable to climate change like Bangladesh. On that standpoint, we need to take necessary steps for our sustainability in the long run. Green interventions and frameworks are crucial for making future development more sustainable. Forming sustainable frameworks are very much essential and within the broader scope of sustainable development agenda of a country like Bangladesh.

#### 3. Features of Sustainable Finance Taxonomy



### 3.1 Identification of Sustainable Linked Finance



#### **3.1.1. Group 1 (Sustainable Agriculture)**

**Finance to Sustainable Agriculture** is linked to Sustainable Finance. Sustainable Finance aims at promoting Sustainable Agriculture through climate change adaptation measures. Agriculture productivity needs to be enhanced especially in rain-fed areas focusing on integrated farming, soil health management, and synergizing resource conservation. Conservation agriculture by promoting location specific integrated/composite farming systems; soil and moisture conservation measures; comprehensive soil health management and rain-fed technologies can make agriculture sector more productive, sustainable, remunerative, and climate resilient. All these components of conservation agriculture have significant role in achieving SDGs.

#### Sustainable Agriculture Sectors\Areas for Sustainable linked Finance

- a) Crops
- b) Irrigation equipment
- c) Agro-equipment
- d) Live-stock & poultry firm
- e) Fisheries
- f) Grain Storage & marketing
- g) Poverty Alleviation
- h) Others (time-to-time as recognized by BB)

Along with the aforementioned products, financing for Integrated Farming System (IFS) in the specific sectors like Horticulture, livestock, fishery, agro-forestry, apiculture etc. to enable farmers not only in maximizing farm returns for sustaining livelihood, but also to mitigate the impacts of drought, flood or other extreme weather events with the income opportunity from allied activities during crop damage.

#### Sustainable Agriculture Products Linked to Green Finance (Part of Sustainable Finance)

- 1. Forestation (Social/integrated/Agro/alike)
- 2. Organic Farming
- 3. Rooftop Agriculture/Vertical Farming or Gardening
- 4. (i) Fish cultivation in cage (ii) Bio-flock fish cultivation (iii)Integrated Recycling System (IRS) fish cultivation
- 5. Financing in coastal aquaculture
- 6. Floating system cultivation

#### **3.1.2. Group 2 (Sustainable CMSME)**

**Finance to Sustainable CMSME** (cottage, micro, small & medium as defined by SMESPD, BB) is linked to Sustainable Finance. Inclusive Sustainable Finance in CMSME aims to advance financial inclusion among the most vulnerable by building resilience and enabling mitigation to climate change. This is especially the case for the transition to a low-carbon, circular and sustainable economy. Banks and FIs should have targeted initiatives to scale up finance for CMSMEs, with a focus on specific sustainable/inclusive sectors.

Sustainable linked CMSME financing decisions upon environmental, social and governance (ESG) considerations will address issues of inequality, inclusiveness, investment in human capital and communities with respect to preservation of biodiversity, pollution prevention and circular economy.

#### A. Sustainable CMSME areas for Sustainable Linked Finance

- 1. Women entrepreneur based project financing
- 2. Rural Based business enterprises project financing
- 3. New entrepreneur project financing
- 4. Cluster Based project financing
- 5. Agricultural product processing industry

#### **B.** Sustainable CMSME industries/projects for Sustainable Linked Finance

- (i) Herbal cosmetic manufacturing industries
- (ii) 100% local ingredients based milk processing industry
- (iii)Handicrafts, Handloom and alike
- (iv)Agro feed manufacturing industry
- (v) Jute made products manufacturing industry
- (vi)Unani/Ayurvedic/Homeopathic manufacturing industries
- (vii) Rice processing industry
- (viii) Agro equipment manufacturing industry
- (ix)Production of bio pesticide, production of organic fertilizer

#### C. Sustainable Finance to other CMSME Priority Projects

- a) Helpless/distressed/underprivileged/Marginal group/area based project financing
- b) Project Financing for the sustainability of Third gender, Physically/Mentally challenged person, Tribal people

\*Others (time-to-time as recognized by BB)

#### 3.1.3. Group 3 (Socially Responsible Financing)

**Finance to Socially Responsible Products/Projects/Initiatives/Sectors** linked to Sustainable Finance. Socially Responsible Finance (SRF) is financing that supports actions mitigating or addressing a specific social issue and/or seeking to achieve positive social outcomes especially but not exclusively for a target population(s). SRF project categories include but are not limited to, providing and/or promoting affordable basic infrastructure, access to essential services (such as health and healthcare), affordable housing, employment generation through the potential effect of SME financing and microfinance, food security, and socioeconomic advancement and empowerment.

#### Socially Responsible Finance Linked to Green Finance (Part of Sustainable Finance):

- 1. Investments in Green Bond
- 2. Community Investment for addressing Climate Resilience and Disaster Management in a concessional rate (finance to clean air, clean water, zero emission of industrial waste, recovery and protection of water bodies, marshy lands, expansion of green coastal belt, water purification, sustainable sanitation, water blockage mitigation)
- 3. Financing in Green/Clean transportation projects (cycles, green vehicles those run on wind, solar energy or bio-fuels etc.)
- 4. Financing in Sand-witch Panel (Floating or Movable Houses in coastal areas or climate vulnerable zone)
- 5. Financing in Govt. approved Eco-tourism project

#### Socially Responsible activities/projects linked to Sustainable Finance

- a) Financing/Investment through MFI(MRA Regulated)/NGO(Govt. Approved) Linkage Mode for capacity building, employment generation including self employment
- b) ICT /online / e-business financing limited to marketing of green products (as recognized by BB)
- c) Financing in Orphanage/Child Rehabilitation Center/Old Age Home

#### 3.2. Identification of other Sustainable Linked Finance

#### **3.2.1.** Working Capital

Financing for wages/direct labor cost under continuous loan and financing for procurement of raw materials under demand loan for the following green products/initiatives/projects will be considered as sustainable linked finance.

#### A. Sector - Renewable Energy

Subsector-Solar Energy:

- Solar Photovoltaic (PV) Assembly/ Manufacturing Plant
- Solar Photovoltaic (PV) Power Plant
- Solar Cooker Assembly /Manufacturing Plant
- Solar Water Heater Assembly/Manufacturing Plant
- Solar Air Heater & Cooling System Assembly/Manufacturing Plant

Subsector-Bio Gas:

• Large size biogas having capacity 26 cubic meter gas production to 200 cubic meter gas production per day and above

Subsector-Wind Power:

• Wind power plant

Subsector- Hydro Power:

• Hydro Power Plant (Pico, Micro, Mini)

#### **B. Sector-Energy & Resource Efficiency**

- Auto sensor power switch assembly Plant
- Energy efficient Cook Stove Assembly Plant
- LED Bulb/Tube Manufacturing/Assembly Plant

#### C. Sector-Alternative Energy

• Pyrolysis Processed Oil/Bio-crude Oil/Bio Fuel Manufacturing Plant

#### **D. Sector-Solid Waste Management**

Compost Production from Municipal Waste Plant

#### E. Sector-Recycling and Manufacturing of Recyclable Goods

- PET Bottle Recycling Plant
- Plastic Waste (PVC, PP, LDPE, HDPE, PS) Recycling Plant
- Paper Recycling Plant
- Recyclable Bag Manufacturing Plant
- Recyclable Poly Propylene Thread and Bag Manufacturing Plant
- Battery (Solar/Led Acid/Lithium Ion) Recycling Plant

#### F. Sector-Environment Friendly Brick Production

- Compressed Block-Brick
- Foam Concrete Brick
- Auto-Green Bricks
- Autoclaved Aerated Concrete (AAC) Bricks
- Brick Kiln Industry (as defined by MoI)/Environment Friendly Brick Kiln Efficient Project (Hybrid Hoffman Kiln, Tunnel Kiln)

#### G. Sector-Green/Environment Friendly Establishments

• USGBC-LEED, BREEAM, CASBEE, EDGE, GRIHA or SREDA certified Green Industry established or being established under green-building rating system introduced/approved (by appropriate authority) in Bangladesh

**H. Financing against Work Order** related to Liquid/Solid Waste Management/Disposal Project by Govt./Local Govt. entity

#### **3.2.2. Priority Green Products for Trading Sector**

Trading of following Green Products for continuous and demand loan will be considered as Sustainable Linked Finance

#### A. Sector - Renewable Energy

Subsector-Solar Energy:

- Solar Home System
- Solar Pico Grid
- Solar Nano Grid
- Solar Micro Grid
- Solar Mini Grid
- Net Metering Rooftop Solar System
- Solar Irrigation Pumping System
- Solar Photovoltaic (PV)
- Solar Cooker
- Solar Water Heater
- Solar Air Heater & Cooling System

Subsector-Bio Gas:

• Bio Gas Plant Accessories

#### **B. Sector-Energy & Resource Efficiency**

- Waste Heat Recovery System/Unit
- Auto sensor power switch
- Energy efficient Cook Stove

• LED Bulb/Tube

#### **C. Sector-Alternative Energy:**

• Pyrolysis Processed Oil/Bio-crude Oil/Bio Fuel

#### **3.2.3. Priority Eco-Friendly Products for Trading Sector**

Eco-friendly products usually contain material that's been recycled or material gathered from a natural source which is easy to replace and minimally damaging to harvest. Eco-friendly products contribute to green living or practices that help conserve resources like water and energy and also prevent contributions to air, water and land pollution.

- 1. Jute-made products e.g. crafts, shopping bags, packaging bag
- 2. Cane made products e.g. craft, furniture
- 3. Biodegradable Waste Bag
- 4. Reusable Grocery Bags
- 5. Solar lantern
- 6. Biodegradable Garden Pots
- 7. Compostable Cutlery (Forks, Spoons, Knives and Tasters)
- 8. Compostable Plates
- 9. Portable Solar Charging Station
- 10. Stainless Steel, Bamboo, Thermal Water Bottle
- 11. Rechargeable batteries
- 12. Reusable coffee filters
- 13. Solar powered phone charger
- 14. Reusable, non-plastic meal prep containers
- 15. Wool footwear and runners
- 16. Biodegradable toilet towels, tissues
- 17. Compostable and Biodegradable Baby Diapers
- 18. Solar Powered Outdoor Speakers
- 19. Natural stain remover and cleaner
- 20. Reusable Coffee Cups
- 21. Recycled Floor Mats
- 22. Compostable Bowls
- 23. Recycling & Recyclable Goods

#### **3.3. Screening and Monitoring**

#### 3.3.1. Screening

Setting of screening criteria is essential to avoid significant harm to climate change mitigation and adaptation, environmental and social harmony. The technical screening criteria will determine whether an activity can be considered to substantially contribute to one of the following six environmental objectives and not significantly harm the other environmental objectives.

#### Six environmental objectives-

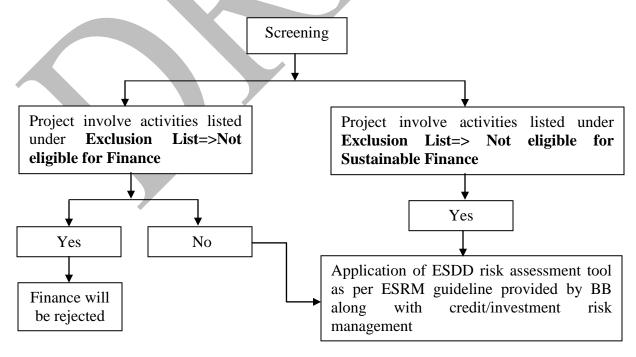
- 1) Climate change mitigation
- 2) Climate change adaptation
- 3) Sustainable and protection of water and marine resources
- 4) Transition to a circular economy, waste prevention and recycling
- 5) Pollution prevention and control
- 6) Protection and restoration of biodiversity and healthy ecosystems

#### Performance thresholds-

- 1) Make a substantive contribution to one of six environmental objectives
- 2) Do No Significant Harm (DNSH) to the other five, where relevant;
- 3) Meet minimum social and governance safeguards

#### 3.3.2. Steps of Screening

All loan proposals will have to be first screened against the exclusion list.



#### 3.3.3. Monitoring

Monitoring must move on in a structured manner immediate after asset creation by the banks and FIs for the maintenance of the standard quality of the assets. Environmental, Social, Governance Screening is essential for the pre evaluation of a project with respect to sustainability but the permanence in sustainability will only be ensured if stricter monitoring in both offsite and onsite manner is carried on with regular intervention.

The purpose of monitoring a client's ESG performance is to assess existing and emerging ESG risks associated with a client's operations during the transaction. Once a finance proposal has been approved, the Bank/FI needs to monitor the client's ongoing compliance with the ESG clauses stipulated in the legal agreement. The monitoring process generally involves a review of periodic ESG performance reports submitted by the client and regular site visits of the client's operations. Special attention should be paid to:

- Assessing implementation of any mitigation measures specified in the corrective action plan
- Monitoring for valid ESG permits or licenses
- > Any fines and penalties for non-compliance with ESG regulations
- Recent reports from the relevant regulator or inspection authority confirming compliance with specified laws, including any emissions measurements proving that emissions are below the permitted limits
- ESG occurrences including major accidents or incidents associated with a client's operations such as worker injuries and spills
- Media attention to ESG issues related to the client
- > Any complaints submitted by stakeholders about a client

If Bank/FI staff identifies ESG issues, such as a client's non-compliance with the ESG clauses stipulated in the legal agreement, they should follow up with the client to resolve these in a reasonable timeframe.

#### 3.4. Inclusion of Technological Advancement

The minimization of waste and emissions and reductions in material and energy inputs are the most important environmental aims. Sustainable technological advancement and innovations play a key role in the long-term initiation of sustainable production which ultimately facilitates sustainable growth. Sustainable finance taxonomy features include financing for the inclusion of technological advancement and innovations leading to sustainable production including Green Production or not yet recognized as green but definitely a sustainable one.

Financing for technological inclusion and featured machineries/technologies include the following sectors-

- 1. Core manufacturing/production
- 2. Energy efficiency and renewable energy
- 3. Business process engineering/Business process automation
- 4. Operations management
- 5. Waste management
- 6. Air management
- 7. Heat management
- 8. Working environment (fire defense and health care)
- 9. Water use management
- 10. Human resources development and management
- 11. Accounting, inventory management, marketing, sales and security management automation

# **3.5.** Sustainable Finance Strategic Planning, R&D for Product Innovation, Product Marketing, Awareness and Capacity Building, Impact Assessment/ Review

#### **3.5.1. Formation of Sustainable Finance Committee**

- Committee formation [refer to the SFD Circular No-02/2016]
- Developing Terms of Reference(ToR)
- Establishing Sustainable Finance Unit (SFU)
- Establishing Dedicated Sustainable Finance Help Desk [refer to the SFD Circular Letter No-05/2020]

#### 3.5.2. Linking of Banks'/FIs' Vision, Mission and Objectives with Sustainability

- Economic contribution
- Environmental contribution
- Social contribution
- Governance (Good Governance, Green Governance)

#### **3.5.3. Developing Sustainable Finance Policy**

Banks/FIs will develop their own Sustainable Finance Policy which must be approved by the competent authority. Board's approval will be required upon the RMC's approach in case of all scheduled commercial banks. Regional Office or MANCOM's approval is required for foreign banks operating in Bangladesh. Sustainable Finance Policy of a Bank/FI must be in conformity with the Sustainable Finance Policy of Bangladesh Bank. Banks and FIs can go for more sophisticated model and develop further as they progress.

#### 3.5.4. Identification and evaluation of funding sources

- Bank's/FI's own fund
- BB support funds
- Development partners' fund

#### **3.5.5. Time Bound Action Plan**

- Assessment of business portfolio in conformity with regulatory requirement
- Setting of phase-wise financing targets

#### **3.5.6. Research and Development**

- Product Innovation
  - Assessing areas of sustainable finance
  - Analysis of market demand and supply
  - Proposition for products/projects

#### 3.5.7. Marketing

A Bank or a Financial Institution must broaden their product portfolio considering product to product area approach involving/engaging, potential borrowers, suppliers, service providers, associations, different chamber of commerce and surroundings. In this way banks and FIs will be intended to build an effective database of product based potential borrowers, suppliers, service providers, associations and chambers, vendors, manufacturers, certified energy auditors and concerns for a better contribution to green business and green economy.

#### 3.5.8. Awareness and Capacity Building

Awareness and Capacity Building for Sustainable Finance including Green Finance, Green Banking and Sustainable CSR activities as part of Sustainable Finance is a must for all concerns and need to be ensured by the SFU with the support from the competent authority (BoD/Regional Office or MANCOM of Foreign Commercial Bank). Awareness and Capacity Building for sustainable financing including green products/projects/initiatives will be moving on parallel with Marketing for Green and Sustainable Products.

#### 3.5.9. Impact Assessment & Review

- Assessment of asset quality
- Assessment of environmental, social and economic contribution of projects/initiatives
- Assessment of governance issue
- Review of achievement/attainment of bank's/FI's own target and regulatory target
- Revision of the strategy

#### **3.6. Sustainable Finance Disclosure**

Banks and Financial Institutions should disclose as disclosure the initiatives/practices taken by them time to time in their respective websites. The following disclosure should be made and updated by all Banks and FIs:

- i. Banks/FIs should start publishing independent Sustainable Finance reports showing past performances, current activities, and future initiatives.
- ii. Updated and detailed information regarding Banks'/FIs' environmental activities and performances of major clients should be disclosed.
- iii. Banks/FIs shall keep their annual report and websites updated with the disclosures on Sustainable Financing initiatives/activities.
- iv. Banks/FIs should incorporate a section/dropdown/tab for their existing Sustainable products/projects/initiatives in their website.
- v. A customer complaint/feedback option should be in their website for any query in this regard.
- vi. Brief information regarding **BB Support Funds** should be disclosed on website in a displayable tab.

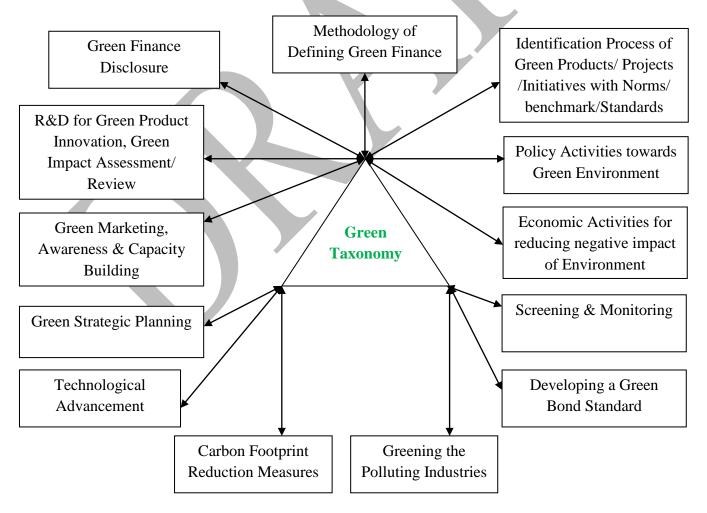
## C. Part-3 Green Taxonomy

**1. Green Taxonomy** is a structured mechanism for identifying and recognizing a product/a project/an initiative as a green one through a set of activities belong to some green featured applications.

#### 2. Objectivity/Focus/Purpose of Green Taxonomy

First and Foremost objectivity of Green Taxonomy should be Climate Finance for Sustainability where finance that aims at reducing emissions, and enhancing sinks of greenhouse gases and aims at reducing vulnerability of, and maintaining and increasing the resilience of, human and ecological systems to negative climate change impacts. Green Taxonomy will focus not only on purely green sectors, but also encourages the greening of polluting sectors. The focus is on activities that contribute substantially to environmental objectives. The taxonomy will also include economic activities with a negative impact on the environment, where these activities have substantially reduced their negative impact.

#### **3.** Features of Green Taxonomy



#### **3.1. Methodology of Defining Green Finance**

Green Finance is a part of ethical financing and subsequently of sustainable Finance. It is a means of promoting environment and resource conservation by reducing consumption of resources (e.g., electricity, water, moving away from paper-based transactions, etc.) through its operations. Banks aiming to green themselves adopt cleaner energy sources such as solar power. Green Finance encourages 'environment-friendly initiatives everywhere by incorporating the spirit of green banking in its financing decisions as well, leading to greening in other sectors. Green Finance should promote the usage of greener technology in other sectors through its lending products. It refers to banks' lending to projects which reduces negative externality or promotes positive externality within the scope of the environment, thus endorsing or supporting green initiatives through financial instruments of the bank.

Green finance is defined as one of a number of terms used to label activities related to the twoway interaction between the environment and finance and investment. Related terms include: responsible investment (RI), environmental, social and governance (ESG), sustainable finance and climate finance. Green finance is used to increase level of financial flows (from banking, micro-credit, insurance and investment) from the public, private and not-for-profit sectors to sustainable development priorities.

Importance of Green Finance is out-of-question - as it promotes and supports the flow of financial instruments and related services towards the development and implementation of sustainable business models, investments, trade, economic, environmental and social projects and policies. In fact, it is a part of Sustainable Finance. Green Finance refers to targeted financing - to Green Technologies/activities/products/projects/initiatives, to Green Companies or Institutions with good/better than average environmental performance and/or compliance with norms and standards and for a Green Project where the selection of the portion of Working Capital Loan is set in the project in such a justified manner which could be recognized as a part of Green Project Loan as Green Finance. Moreover, financing/funding for Research/Innovation /Marketing/Capacity Building/Awareness and digging out/hunting/recognizing new green or environment friendly products/ projects/initiatives will be treated as Green Finance.

An exhaustive Green Finance Policy for defining green finance has been thought for boosting Green Finance as part of Sustainable Finance to ensure and establish Sustainability, Not only products/projects/initiatives under Green Refinance Schemes of BB but broadening space, scope through participation by banks and FIs in the nationwide green and environment friendly green projects/initiatives as recognized by the Respective National Authorities like SREDA, DoE under MoEF&CC is being thought

# **3.2. Identification Process of Green Products/Projects/Initiatives with Norms/Benchmark/Standards**

- Consultation and Review on National Rules, Regulations, Guidelines, Perspective Plans(2010-2021), 8th Five Year Plan, Policies, Guidance Notes, applicable SDGs and International Standards.
- ➤ Climate Fiscal Framework (CFF) a govt. document in 2014 aiming at → Establishing greater national ownership of climate finance; Promoting Government –NGO-Private Sector Partnership Harmonization; Enhancing result management; Increasing mutual accountability; Broadening the opportunity for resilient development and green growth in Bangladesh.
- Environmental Conservation Rules (ECR) 1997 for water and air quality standards, Standard Guidelines for Sludge and Waste management, Environment Friendly Brick kilns Guidance for Compressed Block Bricks, Foam Concrete/Non Fire Bricks/Auto Cleaved Concrete(ACC), Environment friendly brick kiln efficiency improvement systems Hybrid Hoffmann Kiln(HKK), Tunnel Kiln (most environment friendly brick kiln efficiency improvement system in Bangladesh). This needs to be mentioned that Hybrid Hoffmann Kiln(HKK) and Tunnel Kiln have been declared as "Industry" by the Ministry of Industry (MoI), Govt. of Bangladesh. Bangladesh Environment Conservation (Amendment) Act, 2010; The ECA-2010 has stipulated the principle of sustainable development, intergenerational equity, polluter pays principle and precautionary principles those are in the core of the environmental jurisprudence worldwide.
- Sustainable and Renewable Energy Development Authority (SREDA) Guidelines for identifying Renewable and Resource Efficiency Products/Projects/Initiatives.
- Consultation, Experience Shared, Lessons Learned with Practitioners, Product Specific and Industry Specific Association Experts such as Textiles and Garments sectors etc. and Technical Service Providers with a Business Case PP/Concept Notes and thereafter necessary review for an agreeable decision approved by the competent respective authority.
- BB Refinance Scheme's (BDT 04 billion) low cost/ supporting to Participating Financial Institutions (PFIs)(Banks/FIs) against their financing of renewable energy generation and other environmentally benign projects. The size of the fund has been increased from BDT 02 billion to BDT 04 billion due to the growing demand for financing of environment friendly products/Projects/initiatives. The scheme includes 55 green products/projects/initiatives under 09 categories<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup>SFD Circular No.02/2020

Green Transformation Fund (GTF) Guidance Note of BB is in place to guide BB GTF USD 200(two hundred) million Refinance Scheme for all export-oriented industries for importing Green Machineries belong to (i) Water use efficiency in wet processing (ii) Water conservation and management (iii) Waste management (iv) Resource efficiency and recycling (v) Renewable energy and Energy efficiency (vi) Heat and temperature management and (vii) Air ventilation and circulation efficiency category.

BB GTF Euro 200 (two hundred) million Refinance Scheme is another window applicable for all export-oriented industries for importing Green Machineries belong to the above-mentioned green categories with an extension facility to solar energy and renewable energy under power sector. BB GTF Euro has also given scope for importing green capital machinery and accessories (including Buyer's Credit) and also can be used to import (only Buyer's Credit) industrial raw materials used in all manufacturing enterprises including both export oriented and deem exporters.

#### 3.2.1. List of Green Products/Projects/Initiatives

#### A. Renewable Energy

- 1. Solar Home System
- 2. Solar Pico Grid
- 3. Solar Micro Grid
- 4. Solar Park
- 5. Solar Irrigation Pumping System
- 6. Solar Photovoltaic (PV) Assembly/Manufacturing Plant
- 7. Solar Water Heater Assembling/Manufacturing Plant
- 8. Solar Nano Grid
- 9. Solar Mini Grid
- 10. Net Metering Rooftop Solar System
- 11. Solar Pump for Drinking Water
- 12. Solar Cooker Assembly/Manufacturing Plant
- 13. Solar Air Heater & Cooling System Assembly/Manufacturing Plant
- 14. Solar Powered Cold Storage

Establishment of Biogas Plant using following raw materials:

- (i) Agricultural residues
- (ii) Community based wastes
- (iii) Industrial wastes
- 15. Small size biogas plants 1.2, 1.6, 2.0, 2.4, 3.2 and 4.8 cubic meter gas production per day.
- 16. Medium size biogas plant : capacity varies between 6 to 25 cubic meter gas production per day
- 17. Large size biogas plant having capacity 26 cubic meter gas production per day to 200 cubic meter gas production per day and above.

- 18. Integrated Cow Rearing and Setting up of Bio-gas Plant
- 19. Wind Power Plant
- 20. Hydro Power Plant

#### **B. Energy & Resource Efficiency**

- 21. Installation of Energy Auditor Certified machineries including boiler in industries for following purposes:
  - i. Energy Efficiency
  - ii. Resource Efficiency
  - iii. Heat and temperature management
  - iv. Air ventilation and circulation efficiency
  - v. Waste Heat Recovery System/Unit
- 22. Auto Sensor Power Switch Assembly Plant
- 23. Energy Efficient Cook Stove Assembly Plant
- 24. LED Bulb/Tube Manufacturing/Assembly Plant
- 25. Energy Efficient Lime Kiln
- 26. Improved Rice Parboiling System

#### C. Alternative Energy

27. Pyrolysis Processed Oil/Bio-crude Oil/Bio Fuel Manufacturing Plant

#### D. Liquid Waste Management

- 28. Biological ETP
- 29. Combination of Biological and Chemical ETP
- 30. Conversion of Chemical ETP into Combination of Biological and Chemical ETP
- 31. Central ETP
- 32. Waste Water Treatment Plant
- 33. Sewage Water Treatment Plant

#### E. Solid Waste Management

- 34. Methane Recovery and Power Production from Municipal Waste Plant
- 35. Compost Production from Municipal Waste Plant
- 36. Hazardous Waste Management Unit/Plant
- 37. Medical Waste Management Unit/Plant
- 38. E-Waste Management Unit/Plant
- 39. Sludge Management Unit/Plant

#### F. Recycling & Manufacturing of Recyclable Goods

- 40. PET Bottle Recycling Plant
- 41. Plastic Waste (PVC, PP, LDPE, HDPE, PS) Recycling Plant
- 42. Paper Recycling Plant
- 43. Recyclable Bag Manufacturing Plant
- 44. Recyclable Poly Propylene Thread and Bag Manufacturing Plant

45. Battery (Solar/Led Acid/Lithium Ion) Recycling Plant

#### G. Environment Friendly Brick Production

- 46. Compressed Block-Brick
- 47. Foam Concrete Brick
- 48. Environment Friendly/Brick Kiln Efficiency Improvement Project (Tunnel Kiln and HHK)

#### H. Green/Environment Friendly Establishments

- 49. Establishment of Certified Green Industry (USGBC-LEED, BREEAM, CASBEE, EDGE, GRIHA or SREDA)
- 50. Establishment of Certified Green Building (USGBC-LEED, BREEAM, CASBEE, EDGE, GRIHA or SREDA)
- 51. Establishment Green Featured Buildings (Characteristics have been given in Annex-1)
- 52. Concerning Factory working environment and safety (Fire defense system, disaster defense and prevention system, workers' health safety system)

#### I. Green Agriculture

- 53. Earthworm compost manure production
- 54. Palm oil production
- 55. Organic manure production from slurry
- 56. Forestation (Social/integrated/Agro/alike)
- 57. Organic Farming
- 58. Rooftop Agriculture/Vertical Farming or Gardening
- 59. Fish cultivation in cage
- 60. Bio-flock fish cultivation
- 61. Integrated Recycling System (IRS) fish cultivation
- 62. Financing in coastal aquaculture
- 63. Floating system cultivation

#### J. Green CMSME

64. Financing in Cottage Industry

#### K. Green SRF

- 65. Community Investment for addressing Climate Resilience and Disaster Management in a concessional rate (finance to clean air, clean water, zero emission of industrial waste, recovery and protection of water bodies, marshy lands, expansion of green coastal belt, water purification, sustainable sanitation, water blockage mitigation)
- 66. Financing in Green/Clean transportation projects (cycles, green vehicles those run on wind, solar energy or bio-fuels etc.)
- 67. Financing in Sand-witch Panel (Floating or Movable Houses in coastal areas or climate vulnerable zone)
- 68. Financing in Govt. approved Eco-tourism project

#### **3.3.** Policy Activities towards Green Environment

- **BB** issued Green Banking Policy Guideline for Banks (BRPD Circular 02/2011) in 2012.
- In 2013, Policy Guidelines for Green Banking was also issued (GBCSRD Circular No. 04/2013 and GBCSRD Circular Letter No. 05/2013) for the Financial Institutions (FIs)<sup>2</sup> and for the banks scheduled in 2013. Through these guidelines all banks and FIs were brought under the structured reporting system.
- Besides, to expedite the ongoing initiatives of banks and FIs at faster pace, from January 2016 onwards minimum target of direct green finance was set at 5% of the total funded loan disbursement/investment for all banks and FIs (GBCSRD Circular No. 04/2014).
- Bangladesh Bank vide SFD Circular No. 02, dated December 01, 2016 instructed all banks and FIs to establish Sustainable Finance Unit and Sustainable Finance Committee by abolishing both Green Banking and CSR units.
- Bangladesh Bank (BB) started its policy intervention on environment friendly banking practices by issuing Environmental Risk Management (ERM) Guidelines for Banks and Financial Institutions (FIs) (BRPD Circular No.01/2011). Guidelines on Environmental and Social Risk Management (ESRM) for Banks and Financial Institutions in Bangladesh along with an Excel-based Risk Rating Model have been issued vide SFD Circular No. 02/2017 which has become enforceable from January 01, 2018 replacing the Guidelines on ERM to all extent.
- A comprehensive list of product/initiatives of Green Finance for banks and FIs has been circulated in September 2017 (SFD Circular No. 04/2017).
- To ensure the movement towards sustainability, Banks and FIs were instructed to form a 'Climate Risk Fund' having allocation at least 10% of their Corporate Social Responsibility budget for Climate Risk Fund. This funding can be done in both ways- by providing grants or financing at reduced rate of interest (GBCSRD Circular No. 04/2015).
- Banks & FIs have been instructed to set up Solid Waste Management System, Rainwater Harvesting and Solar Power Panel in their newly constructed or arranged building infrastructure (SFD Circular No. 01/2016).
- By the direction of Honorable Prime Minister, and Bangladesh Bank's instruction in conformity with that, all the banks & FIs must ensure the establishment and activeness of Effluent Treatment Plant (ETP) during financing to all possible clients (SFD Circular No 03/2016)

<sup>&</sup>lt;sup>2</sup> Financial Institutions licensed under Financial Institutions Act, 1993.

#### 3.4. Economic Activities for reducing negative impact of Environment

Increased consumption of non-renewable resources, higher levels of pollution, global warming and the potential loss of environmental habitats are included in the environmental impact of economic growth. Also, economic growth caused by improved technology can enable higher output with less pollution.

Environment provides land, water, air, energy resources, coal, oil, forests, minerals and metals and so many other natural resources which are essential for the economic development of the economy. It provides services which are directly used by the consumers i.e. air we breathe and water we drink as a liquid of life.

Negative impact on the environment can be reduced through:

- 1) Use energy more efficiently
- 2) Install renewable
- 3) Conserve water
- 4) Reduce, reuse, recycle
- 5) Travel less
- 6) Consider near sourcing
- 7) Ship goods more efficiently

#### 3.5. Screening & Monitoring

Pre disbursement Screening for Potential investments of Banks and FIs are essential in both quantitative and qualitative judgments as well as stricter onsite and offsite monitoring immediate after disbursement must go on to maintain the quality of the assets remain unclassified.

- ESRM Guidelines (December 2017) issued by BB (prepared in consultation and in conformity with international standards) and Off-site Reporting Format in place. On-site check list for Sustainable Financing including Green Finance will also be in place.
- > Product/Project/Priority Sector Specific ESDD screening as it deems fit.
- Green Transformation Fund(GTF) Guidance Note of BB is in place to guide BB GTF USD 200(two hundred) million and BB GTF Euro 200 (two hundred) Refinance Scheme for all export-oriented industries for importing Green Machineries belong to (i) Water use efficiency in wet processing (ii) Water conservation and management (iii) Waste management (iv) Resource efficiency and recycling (v) Renewable energy and Energy efficiency (vi) Heat and temperature management and (vii) Air ventilation and circulation efficiency category. Machineries imported for export-oriented industries under GTF need to go through eligible certified energy and resource efficiency audits.
- Green Buildings and Green Industries require authenticated Certification for such as Gold, Silver, Platinum gradation.

Methodology for Sustainability Rating of the banks and FIs in process (considering sustainable finance, green finance, green refinance and CSR activities, green governance and compliance issues addressing sustainability).

#### **3.6. Developing a Green Bond Standard**

Green Bond is a bond with "green" featured type of fixed-income and liquid financial instruments those are easy to understand and is specifically earmarked to raise money for climate-mitigation and adaption projects, and other environmentally beneficial activities.. These bonds are typically asset-linked and backed by the issuing entity's balance sheet. Bangladesh has a target to reduce greenhouse gas emissions by 5% by 2030 compared to a business as usual scenario, or 15% conditional on mobilizing international finance and support from international sources.

For both the issuer and the investor - a bond is a very beneficial instrument. By issuing a bond - the issuer gets the required fund whereas the investors will receive interest and the principal amount.

Green bonds have some additional transaction cost because issuers must track, monitor and report on use of proceeds. Green bond issuers, offset this initial cost highlighting their green assets/business, Positive marketing story, Diversify their investor base (as they can now attract ESG/RI specialist investors), Joins environmental team with Investor relations and other business. Recent trends show that the bond market is more or less about 6% of GDP. Government bonds make up lion-share of outstanding bonds. The corporate debt market is very limited with only one issue listed on public stock exchanges. The private bond market is largely limited to commercial banks issuing subordinated debt to meet capital adequacy requirements.

Standard of Climate Bonds through a Climate Bond Taxonomy contains **Energy** (solar, Hydropower, Bio-energy, Wave & Tidal, Energy Distribution and Management, Dedicated Transmission); **Transport** (Rail, Vehicles, Mass Transit, Bus Rapid Transport, Water Bourne Transport, Alternative Fuel Infrastructure); **Low Carbon Buildings** (Residential, Commercial, Retrofit, Products for building Carbon efficiency) **IT& Communication** (Power management, Broadband, Resource Efficiency, Tele/Video conferencing); **Waste & Pollution Control** (Recycling, Other Recovery, Disposal, Prevention); **Nature Based Assets**(Agricultural Land, Forests (Managed or Unmanaged), Wet Lands, Degraded Lands, Other Land uses (managed and unmanaged), Fisheries and Aquaculture, Coastal Infrastructure, Land Remediation); **Industry & Energy Intensive Commercial** (Manufacturing, Energy efficiency processes, Energy Efficiency Products, Retail and wholesale, Data centres, Process and fugitive emission, Energy Efficient Appliances, Combined Heat and Power).

#### 3.6.1. Key stakeholders in Bangladesh for green bonds are -

- 1. Ministry of Finance: Responsible for state budget, taxation and economic policy.
- 2. Bangladesh Bank: Sets (green) policies for Banks and FIs.
- 3. SREDA: Sets framework to develop pipeline sustainable energy projects.

- 4. BSEC: Sets regulations concerning trade of fixed income products.
- 5. NBR: Sets tax policy on fixed income products.
- 6. DSE & CSE: Stock exchanges where listed share/bonds are traded.
- 7. IDRA: Sets regulations for the insurance sector.

#### **3.6.2.** Market barriers in Bangladesh for green bonds are:

**For Issuers:** (i) High transaction cost; (ii) Poor access to investors; (iii) Unclear project pipeline; (iv) High taxes and regulatory barriers.

**For Domestic Investors:** (i) Competition with other fixed income products; (ii) Competition with non-green projects; (iii) Poor credit rating and management capacity; (iv) Regulatory restrictions.

**For International Investors:** (i) Currency and country risks; (ii) Unclear green impact; (iii) Small project and instrument size

Banks and FIs, Ministry of Finance, Development Banks (e.g. BIFFL, IDCOL, etc.) are the possible issuers of green bonds in Bangladesh. On the other hand, possible investors for green bonds are - Pension Fund, Large corporate, Insurance companies, Asset managers, banks and FIs as well as International investors.

BB, in collaboration with BSEC and IDRA with buy-in from the Ministry of Finance, must lead the development and publication of a set of national guidelines and standards on green bonds covering both the technical specification of the instrument as well as eligible project activities. The next foundation for green bond pipeline development is the identification of a list of priority projects, for which BB can only take a supportive role as it will need to be aligned with both Bangladesh's NDC and broader development strategies. However, BB can play a key role in communicating this list to investors (especially international) in partnership with SREDA and the Ministry of Finance.

#### 3.6.3. Green Investment

Green Investments are focused on products/projects/initiatives committed to the conservation of natural resources, the production and discovery of alternative energy sources, the implementation of clean air and water projects, or other environment-friendly business practices. Green investments belong to following categories:

A. Investment in Green Bond/Green SUKUK: Bangladesh is highly vulnerable to climate change risk. In this context, GoB has developed a master plan to combat the impending threats. Accordingly, it is necessary to build-up eco-friendly industries/concerns, infrastructures and plants for green energy production. All those projects require long-term mega investments. As issuance concerns, green bond/green SUKUK issuers commit to provide investors with detailed information on the projects and infrastructure supported with the v proceeds. These are typically asset-linked and backed

by the issuing entity's balance sheet, so they usually carry the same credit rating as their issuers' other debt obligations.

#### **B.** Investment in Impact Fund:

This investment is a further possibility for banks/FIs to invest in solutions with a high social or ecological impact and a financial return. BB issued policy, through DOS Circular No.:02/2015 for banks and DFIM Circular No.:04/2016 for FIs, on investment in funds (Special Purpose Vehicle - SPV, Alternative Investment Fund or similar nature of fund) which are registered by BSEC but not listed in capital market. Moreover, a list of area/objectives was declared for investment of the impact fund along with declaration of such investment's being considered as Green Finance through SFD Circular No.:01/2019.

The list is given below:-

- 1. Resource Efficiency
- 2. Air Emission and Quality Efficiency
- 3. Resource Recycling
- 4. Waste Management (both solid and liquid)
- 5. Renewable Energy
- 6. Land Contamination Prevention/Mitigation
- 7. Energy Efficiency
- 8. Land Acquisition and Resettlement Management
- 9. Water Management and Conservation
- 10. Labour and Working Condition Management
- 11. Water Use Efficiency
- 12. Community Health and Safety Management
- 13. Waste Water and Effluent Treatment Management
- 14. Indigenous People and Cultural Heritage
- 15. Heat and Temperature Management
- 16. Women and Child Right Protection
- 17. Air Ventilation and Circulation Efficiency
- 18. Environment/Climate Friendly Industry/Building/Brick Kiln
- 19. Environment/Climate Friendly Transportation/Vehicle
- 20. Nature Conservation
- 21. Environment Friendly Agriculture
- 22. Any other deemed Eligible by BB

#### **3.7.** Greening the Polluting Industries

As per ECR 1997 issued by DoE under MoEF&CC, all industrial units are categorized into Green, Orange A, Orange B and Red category with respect to pollution level. Among these industrial units, Orange B is considerably more polluted and Red category units belong to the most polluting industries. Sector Specific ESDD Screening for some more or most polluting priority industries like Textile, Steel, Cement, Brick Kiln, Tannery, Power Plant etc. will be required to go under dedicated ESDD screening checks for greening those industrial units through fulfillment of required work conditions & compliances of DoE and accordingly installations/introductions of Green Products/Machineries/Projects for reducing emission to a required extent and thus green transformation will happen to these polluting industrial units.

#### 3.8. Carbon Footprint Reduction Measures & Carbon Finance

**Carbon Footprint Reduction Measures**- A carbon footprint is the total amount of greenhouse gas emissions that originates from the production, use and end-of-life of a product or service. It includes carbon dioxide, the gas most commonly emitted by humans and others, including methane, nitrous oxide, and fluorinated gases, which trap heat in the atmosphere, causing global warming. Usually, the bulk of an individual's carbon footprint originates from transportation, housing and food. Bangladesh Bank has already published it's HQ's first annual report, 2014 on carbon footprint measurement as a part of their sustainability commitment to produce and publish own carbon footprint. Thus BB has been encouraging the other organizations of Bangladesh, specially Banks & FIs to measure carbon footprint on their own. Now BB is intended to collect & assess the energy consumption related data of Banks & FIs on yearly basis for taking necessary steps to reduce the carbon emission of Banks & FIs.

**Carbon Finance-** There are many ways and efforts underway to reduce carbon emissions and promote activities which help to store and remove carbon. This has made carbon a valuable economic commodity. To find a common unit for this commodity all GHGs are converted to CO2 equivalents (CO2-eq). The CO2-eqs are traded on carbon markets. Carbon Finance is earned by making investments in generation of greenhouse gas emission reductions that can be traded in carbon markets. Common Carbon Finance project types include cleaner production projects and projects that increase energy efficiency or generate power from renewable resources. Banks & FIs could participate actively in carbon markets in various ways:

- Offering advisory services to clients entering or active in carbon markets, including marketing, structuring, transacting, and sales of carbon;
- Offering targeted financing to companies with GHG emission reductions projects and programs that generate a stream of carbon finance income;
- Selling emission reductions in the carbon market which they aggregate and purchase from portfolios of clients with smaller-scale GHG emission reductions projects;
- Making equity investments in companies that originate and transact GHG emission reduction projects and programs that earn carbon finance payments, and

• Receiving emission reductions in addition to interest payments as part of upside-sharing agreed with clients that generate carbon credits.

BB is intended to introduce Carbon Finance as on demand in the financial market of Bangladesh.

#### 3.9. Technological Advancement for Inclusiveness in Green Activities and Green Growth

"Technological Advancement for Inclusiveness in Green Activities and Green Growth" is well covered in "Inclusion of Technological advancement" of Sustainable Finance Taxonomy and the theme is not required to mention separately again.

# **3.10.** Green Strategic Planning, R&D for Green Innovation, Product Marketing, Awareness and Capacity Building, Green Impact Assessment /Review

Green Taxonomy has been included as part of Sustainable Finance Taxonomy. As such Green Strategic Planning, R&D for Green Innovation, Product Marketing, Awareness and Capacity Building, Green Impact Assessment /Review have been taken in due consideration while discussing earlier in Sustainable Finance Taxonomy.

#### **3.11. Green Finance Disclosure**

Green Taxonomy has been included as part of Sustainable Finance Taxonomy. Banks and Financial Institutions should disclose as disclosure the initiatives/practices time to time taken by them in their respective websites. The following disclosure should be made and updated by all Banks and FIs:

- i. Banks/FIs should start publishing independent Green Banking reports showing past performances, current activities, and future initiatives.
- ii. Updated and detailed information regarding Banks'/FIs' environmental activities and performances of major clients should be disclosed.
- iii. Banks/FIs shall keep their annual report and websites updated with the disclosures on Green Banking initiatives/activities.
- iv. Banks/FIs should incorporate a section/dropdown/tab for their existing Green products/projects/initiatives in their website.
- v. A customer complaint/feedback option should be in their website for any query made in this regard.
- vi. Brief information regarding **BB Support Funds** should be disclosed on website in a displayable tab.

### **D.** Part-4 Target of Green Finance & Sustainable Finance

# **1.** Fixation of Green Finance Target and Sustainable Finance Target including Green Finance

All Banks and Financial Institutions shall determine their annual target on the basis of their immediate previous year's net outstanding amount and declare their yearly budget allocation both for Green Finance and Sustainable Finance at the beginning of the calendar year. Banks and FI will have to compute their immediate previous year Net Outstanding (Total Outstanding less staff loans and total classified loans) for computation Green Financing target. In conformity with BB's guidelines, Banks and Financial Institutions shall set target of Green Finance and Sustainable Finance taking all potential area and product/projects with required justification.

#### 2. Attainment of Green Finance and Sustainable Finance Target

Banks and Financial Institutions report to their attainment of Green Finance on Quarterly basis. Sustainable Finance Department will determine Green Finance attainment of all Banks and Financial Institutions on the basis of Term Loan Disbursement (excluding staff loan), and attainment of Sustainable Finance on the basis of Total Loan Disbursement (excluding staff loan). Attainment of Green Finance and Sustainable Finance should be maintained in conformity with guidelines issued by BB.

### E. Part-5 Exclusion List & Inclusion Criteria of Products/Projects/Initiatives for Sustainable Finance

#### 1. Exclusion List=>Not eligible for Finance

All loan proposals will have to be first screened against this exclusion list. Financing in any activity/area in the following list is not to be considered for financing.

| <b></b>   | lastor  | Activities/ Areas  |  |  |  |
|-----------|---|--|--|--|--|
| Sector    |   |  |  |  |  |
| 1 4       | · 14  | Production or trade in any product or activity deemed illegal under              |  |  |  |
| 1. Agr    | iculture  | laws or regulations of Government of Bangladesh or international                 |  |  |  |
|           |   | conventions and agreements, or subject to international bans, such as            |  |  |  |
|           | SMEs and  | pharmaceuticals, pesticides/herbicides, ozone depleting substances,              |  |  |  |
| -         | ge Industry   | PCB's, wildlife or products regulated under the Convention on                    |  |  |  |
|           | nufacturing   | International Trade in Endangered Species (CITES). A list of                     |  |  |  |
| and       | Service)  | applicable national regulations and international treaties for this policy       |  |  |  |
|           |   | has been given in <b>Annex-2</b> .   |  |  |  |
| 3. Trac   | le and  | Ship breaking/ trading activities refers to:                                     |  |  |  |
| Con       | nmerce  | <ul><li>Ships with prevalent asbestos use (for e.g. passenger cruise);</li></ul> |  |  |  |
|           |   | Ships listed on the Greenpeace blacklist*;                                       |  |  |  |
|           |   | Ships not certified "gas free" for hot work                                      |  |  |  |
|           |   | Drift net fishing, deep sea bottom trawling, or fishing with the use of          |  |  |  |
|           |   | explosives or cyanide  |  |  |  |
|           |   | Hydraulic horn and >75 decibel horns, polypropylene and polythene                |  |  |  |
|           |   | bags, two stroke engines.  |  |  |  |
|           |   | Operations impacting UNESCO World Heritage Site and/or Ramsar                    |  |  |  |
|           |   | site   |  |  |  |
|           |   | Illegal logging, and logging operations or conversion of land for                |  |  |  |
|           |   | plantation use in primary tropical moist forests                                 |  |  |  |
|           |   | Production or activities involving forced labor/ child labor                     |  |  |  |
|           |   | Production or trade in:  |  |  |  |
|           |   | ➢ Weapons and munitions  |  |  |  |
|           |   | ➢ Tobacco  |  |  |  |
|           |   | <ul> <li>Gambling, casinos</li> </ul>  |  |  |  |
|           |   | Pornography (goods/stores/web-based)   |  |  |  |
|           |   | > Production or activities that impinge on the lands owned, or                   |  |  |  |
|           |   | claimed under adjudication, by Indigenous Peoples, without full                  |  |  |  |
|           |   | documented consent of such peoples   |  |  |  |
|           |   |  |  |  |  |
| *http://v | *http://www.greenpeace.org/international/en/campaigns/oceans/pirate-fishing/Blacklist1/ |  |  |  |  |

#### 2. Exclusion List=> Not eligible for Sustainable Finance

Any finance falls in the following list will not be eligible as sustainable finance.

| Sector         | Activities/ Areas   |
|----------------|---|
|                | If does significant harm to natural reserves, scenic spots, drinking      |
| 1. Agriculture | water source reserves, basic farm land reserves, forest parks, geo        |
| 2. CMSMEs and  | parks, important wet lands, natural forests, important habitats for       |
| Large Industry | wildlife, key protected places for growth and reproduction of wild        |
| (Manufacturing | plants, natural spawning grounds, feeding grounds, wintering ground       |
| and Service)   | sand migration channels for important aquatic organisms, natural          |
| 3. Trade and   | fishing grounds, water and soil.  |
| Commerce       | Use of thermal coal, high toxic and high residual/chemical                |
|                | pesticides/fertilizer, use of livestock and poultry food not approved by  |
|                | the government.   |
|                | • Upstream fossil fuel extraction and production (including gas, coal     |
|                | and oil)  |
|                | New standalone fossil fuel electricity production                         |
|                | • projects that lead to an increase in CO <sub>2</sub> emissions (through |
|                | capacity expansion and increased output as a result of the                |
|                | project/investment)   |
|                | • Processing, storing, marketing of gas, and oil                          |
|                | Refining of oil   |
|                | Nuclear power generation and related assets                               |
|                | Distribution or transport of fossil fuels                                 |
|                | Construction, maintenance or expansion of roads                           |
|                | • Heavy duty vehicles, infrastructure for fossil fuels (e.g., fuel        |
|                | stations) or bunker fuelled shipping infrastructure                       |
|                | Projects supported by the activities involving heavy metal                |
|                | contaminated soil.  |
|                | The projects do not support the processing, recycling and other           |
|                | activities of waste (solid and liquid).                                   |
|                | The projects do not maintain standard bio-safety level, fire defense      |
|                | system, workers health safety equipments.                                 |
|                | The projects include the storage, logistics and distribution of toxic,    |
|                | harmful and dangerous goods.  |
|                | The projects endanger local livelihoods; decrease the quality life of     |
|                | indigenous people.  |
|                | The projects do not include gender equality, freedom of association       |
|                | and right to bargaining of company employee/workers.                      |
|                | The projects threaten community/public health                             |

#### 3. Inclusion Criteria of Products/Projects/Initiatives for Sustainable Finance

Banks and FIs will apply to General Manager, Sustainable Finance Department, Bangladesh Bank, Head Office through the letter signed by the respective Managing Director/Chief Executive Director for the approval before financing to any new products/projects/initiatives as Sustainable Finance (Green Finance or Sustainable Linked Finance) beyond the products/projects/initiatives mentioned in this policy. A report must be attached with the application evaluating Financial Profitability, Environmental and Social Feasibility and Pre-Risk Assessment of new products/projects/initiatives for Sustainable Finance. Upon the approval by Bangladesh Bank the proposed products/projects/initiatives will be considered suitable for Sustainable Finance.

Aspects of products/projects/initiatives for the inclusion in the list of Bangladesh Bank for Sustainable Finance:

#### **3.1. Financial Profitability**

- 1) Activity/ Operating Efficiency
- 2) Liquidity
- 3) Solvency
- 4) Profitability
- 5) Valuation

#### 3.2. Environmental and Social Feasibility

- 1) Resource Efficiency
- 2) Resource Recycling
- 3) Renewable Energy
- 4) Energy Efficiency
- 5) Water Management and Conservation
- 6) Water Use Efficiency
- 7) Waste Water and Effluent Treatment Management
- 8) Heat and temperature management
- 9) Air ventilation and circulation efficiency
- 10) Air emission and quality efficiency
- 11) Waste (liquid and solid) Management
- 12) Land Contamination Prevention/Mitigation
- 13) Land Acquisition and Resettlement Management
- 14) Labor and Working Condition Management
- 15) Community Health and Safety Management
- 16) Indigenous People and Cultural Heritage

#### **3.3. Pre-Risk Assessment**

- 1) Cash Flow Forecasting (Net Present Value, Internal Rate Return, Discounted Payback Period and others)
- 2) Collateral Requirement
- 3) SWOT Analysis
- 4) Market (Domestic/Export-oriented) Analysis
- 5) Fiscal Aspects

### **F.** Conclusion

It is evident that "Policy Guidelines for Green Banking" issued on February 27, 2011 by Bangladesh Bank has gradually changed the mindset of the traditional bankers. Now a days the bankers are more comfortable in pursuing and practicing Green Banking that includes Green Finance along with Internal Environmental Management, Utilization of Climate Risk Fund, Green Marketing, ESDD Screening, R&D for green product innovation, also concentrating on Green agriculture, Green CMSME, SRF and CSR activities with respect to sustainability for attaining a climate change resilient environmental scenario through contribution towards green economy. Green Banking Policy covered mostly all the issues on Green Banking activities most importantly green finance, a part of sustainable finance. It is also evident that banks and FIs were long-awaiting to contribute to Sustainable and Green Finance in a structured and transparent manner and recognition there-in. So sustainable finance taxonomy has been structured in this Sustainable Finance Policy incorporating a green taxonomy containing green finance policy. sustainable linked CSR, SRF, sustainable linked agriculture and sustainable linked CMSME issues related to green and sustainability. Reporting on Sustainable Finance has been structured in such a manner that contribution by a bank or a financial institution towards Sustainable Finance including green finance is justified and recognized. It does not required to be mentioned that Sustainable Finance Policy has not only broaden the scope of Sustainable and Green financing for the participating banks and FIs but also enabling them to be rated better and recognized well in the sustainability rating of BB.

## G. Annexure

#### 1. Annexe-1: Characteristics of Green Featured Building

| Sl | Equipment<br>Name  | Specification   |   |                    |                      |   |   |
|----|--|---|---|--------------------|----------------------|---|---|
| 01 | 01       Air Conditioning<br>System       Air-conditioning accounts for more than 50% of the total electric<br>centrally air-conditioned building. Hence the efficiency of a HV<br>of prime importance. The heart of the HVAC system is the chille<br>is important to procure an efficient chiller system. The cooling equipation<br>meet or exceed the minimum efficiency requirement as stated<br>below.<br>Table–Minimum efficiency requirements for water chilling processing<br>Description         01       Air-conditioning accounts for more than 50% of the total electric<br>centrally air-conditioned building. Hence the efficiency of a HV<br>of prime importance. The heart of the HVAC system is the chiller<br>is important to procure an efficient chiller system. The cooling equipation<br>meet or exceed the minimum efficiency requirement as stated<br>below.<br>Table–Minimum efficiency requirements for water chilling processing the total electric<br>meet or exceed the minimum efficiency requirement as stated<br>below. |   |   |                    |                      | a HVAC system is<br>chiller and hence it<br>ling equipment shall<br>stated in the table |   |
|    |  | Air cooled<br>chillers<br>including<br>the<br>condenser<br>Air cooled<br>chillers<br>without the<br>condenser<br>Water<br>cooled,<br>electrical<br>operated<br>positive | All<br>Capacities<br>All<br>Capacities<br>All<br>capacities | 2.8<br>3.1<br>4.20 | 3.05<br>3.45<br>5.05 | 1.25<br>1.13<br>0.83  | ARI 550/590<br>ARI 550/590<br>ARI 550/590 |
|    |  | displaceme<br>nt<br>(Reciprocat<br>ing)<br>Water<br>cooled<br>electrical<br>operated  | <150 TR<br>≥150 TR<br>and 300 TR                            | 4.45               | 5.2<br>5.6           | 0.79<br>0.71  | ARI 550/590                               |
|    |  | positive<br>displaceme<br>nt (rotary<br>screw and<br>scroll)  | ≥300 TR   | 5.5                | 6.15                 | 0.64  | A DI 550/500                              |
|    |  | Water   | <150 TR   | 5.0                | 5.25                 | 0.70  | ARI 550/590                               |

| I I I I I I I I I I I I I I I I I I I |  |   |      |                                    |                |                   |
|---------------------------------------|--|---|------|------------------------------------|----------------|-------------------|
|                                       | cooled<br>electrically<br>operated                                     | $\geq$ 150 TR<br>and 300 TR                 | 5.55 | 5.9                                | 0.63           |                   |
|                                       | centrifugal  | ≥300 TR                                     | 6.1  | 6.4                                | 0.57           |                   |
|                                       | Air cooled<br>absorption<br>single<br>effect                           | All<br>Capacities                           | 0.60 |                                    |                | ARI 560           |
|                                       | Water<br>cooled<br>absorption<br>single<br>effect                      | All<br>Capacities                           | 0.70 |                                    |                | ARI 560           |
|                                       | Water<br>cooled<br>absorption<br>double                                | All<br>Capacities                           | 1.0  | 1.05                               |                | ARI 560           |
|                                       | effect<br>(indirect<br>fired)  |   | 1.0  | 10                                 |                |                   |
|                                       | Water<br>cooled<br>absorption<br>double<br>effect<br>(Direct<br>fired) | All<br>Capacities                           | 1.0  | 1.0                                |                | ARI 560           |
|                                       | Та   | ble– Minimum                                |      | cies requir<br>oning equi          |                | r air cooled      |
|                                       | Equipme<br>nt type   | Refrigerant<br>output                       | Seas | onal coeffi<br>formance (<br>kW/kW | cient of SCOP) | Testing procedure |
|                                       |  | <19 kW                                      | 2.84 | (COPc)                             |                | ARI 210/240       |
|                                       | Air-<br>cooled air   | $\geq$ 19 kW and < 40 kW                    | 3.16 | (COPc)                             |                |                   |
|                                       | condition<br>er  | $\geq$ 40 kW and <<br>70 kW<br>$\geq$ 70 kW | 3.04 | (COPc)                             |                | ARI 340/360       |
|                                       |  | - / U K W                                   | 2.72 |                                    |                |                   |
|                                       |  | <19 kW                                      |      | (COP)                              |                | ARI 210/240       |
|                                       | Evaporati<br>ng water-<br>cooled air                                   | $\geq$ 19 kW and $<$ 40 kW                  | 3.37 | (COP)                              |                |                   |
|                                       | condition  | $\geq$ 40 kW and < 70 kW                    |      | (COP)<br>(IPLV)                    |                | ARI 340/360       |
|                                       | ers  | $\geq$ 70 kW                                |      | (COP)                              |                |                   |

| Air-<br>cooled<br>condense<br>r units $\geq 40 \text{ kW}$ $2.96 \text{ (COP)}$<br>$3.28 \text{ (IPLV)}$                                      |                                       |
|---|---------------------------------------|
| Water-<br>cooled or<br>evaporati<br>ng<br>condense<br>r units $\geq 40 \text{ kW}$ $3.84 \text{ COP}$ All                                     | RI 365                                |
|   |                                       |
| NOTES:<br>- AC coefficient of performance: COP = Refrigerant output<br>input (kW/ kW);  | ıt / power                            |
| <ul> <li>Condenser unit, including the compressor and condenser</li> <li>Minimum coefficients of performance listed in Table 2 and</li> </ul> | ire                                   |
| calculated at 100% of the refrigerant output. To calculate the coefficient of performance of AC units running for one year                    |                                       |
| 340/360 uses the following formula:   | al, AN                                |
| IPLV = 0.01A + 0.42B + 0.45C + 0.12D  |                                       |
| Where:  |                                       |
| IPLV – The Integrated Part Load Value- coefficient of per   | formance of                           |
| the AC unit operating for one year at various part loads.<br>A = COP - coefficient of performance of the AC unit (W/V)                        | W) at full                            |
| load;   | vv) at lull                           |
| B = COP - coefficient of performance of the AC unit (W/V)   | W) at 75%                             |
| load;   |                                       |
| C = COP - coefficient of performance of the AC unit (W/V)   | W) at 50%                             |
| 1  load;<br>D = COP – coefficient of performance of the AC unit (W/V)   | W) at 25%                             |
| load;   | (()) at 25 /0                         |
| ARI – American Refrigerant Institute  |                                       |
| 02 Lift / Escalator Escalator-the escalator must be fitted with controls & Sense  | -                                     |
| or auto stop when no traffic is detected. Escalators shall be   | e designed with one                   |
| of the energy saving features as described below:<br>1. Reduced speed control: The escalator shall change                                     | e to a slower sneed                   |
| when no activity has been detected for a period of a  | -                                     |
| (3) minutes. Detection shall be by photocell ac   |                                       |
| sensor at the top and bottom landing areas.   | Arvation of similar                   |
| 2. Use on demand: The escalator shall shut down wi  | when no activity has                  |
| been detected for a period of a maximum of fifteer  | -                                     |
| on demand escalators must be designed with energy   |                                       |
| technology. The escalator shall start automatically   | -                                     |
| activation shall be by photocells or sensor instal  | -                                     |
| bottom landing areas.   | · · · · · · · · · · · · · · · · · · · |
| 3. Use of AC Variable-Voltage and Variable-Frequence  | cy (VVVF) drives                      |
| B. Elevator (lift) - Elevator (lift) must be provided with con  |                                       |
| energy demand. To meet this requirement, the following  |                                       |

| r   | 1                            |  |  |  |  |
|-----|------------------------------|--|--|--|--|
|     |                              | incorporated in traction drive elevators:  |  |  |  |
|     |                              | 1. Use of AC Variable-Voltage and Variable-Frequency (VVVF) drives   |  |  |  |
|     |                              | on non-hydraulic elevators.  |  |  |  |
|     |                              | 2. The lift car uses energy-efficient lighting and display lighting i.e. an  |  |  |  |
|     |                              | average lamp efficacy, across all fittings in the car, of >55 lamp   |  |  |  |
|     |                              | lumens/ circuit watt and lighting switches off after the lift has been   |  |  |  |
|     |                              | inactive for a period of a maximum of five (5) minutes.  |  |  |  |
|     |                              | 3. The lifts operate in a stand-by condition during off-peak periods. For  |  |  |  |
|     |                              |  |  |  |  |
|     |                              | example, the power side of the lift controller and other operating   |  |  |  |
|     |                              | equipment such as lift car lighting, user displays, and ventilation fans   |  |  |  |
|     |                              | switch off when the lift has been inactive for a period of a maximum   |  |  |  |
|     |                              | of five (5) minutes.   |  |  |  |
| 03  | Solar power                  | 3% of Energy of use for Lift and Escalator   |  |  |  |
|     | system                       |  |  |  |  |
| 04  | Fresh air supply             | Mechanical ventilation and Blower in Basement Floors and Fresh air supply  |  |  |  |
|     | & mechanical                 | system in habitable floor  |  |  |  |
| 0.5 | Vent                         | *Variable speed derive fan & motor unit  |  |  |  |
| 05  | Lighting                     | Limitation of Lighting Power Density (LPD) will help to design the lighting  |  |  |  |
|     |                              | system in the most efficient way and reduce the lighting and cooling load in   |  |  |  |
|     |                              | the buildings. The following table sets the average LPD limits for each  |  |  |  |
|     |                              | building type:   |  |  |  |
|     |                              | Space LPD (W/m <sup>2</sup> )  |  |  |  |
|     |                              | Business 9   |  |  |  |
|     |                              | Mercantile 13  |  |  |  |
|     |                              | Hotels 9   |  |  |  |
|     |                              | Hospitals/Health care11Residential7  |  |  |  |
|     |                              |  |  |  |  |
|     |                              | Schools 11<br>Covered parking 3  |  |  |  |
|     |                              |  |  |  |  |
|     |                              | Open and outdoor parking 1.6   |  |  |  |
|     |                              | Industries As per requirement for  |  |  |  |
|     |                              | the specific task  |  |  |  |
| 06  | Sanaona                      | preferably LED lights  |  |  |  |
| 06  | Sensors                      | Occupancy Sensors, Day light sensors, Co2 Sensor<br>at least 10 no of sensors (single or different type)   |  |  |  |
| 07  | Automation                   |  |  |  |  |
| 07  | Automation                   | Building Management System (BMS) or Energy Management System (EMS):  |  |  |  |
|     |                              | An EMS/BMS reduces energy use in buildings by monitoring conditions and controlling energy-consuming equipment. Frequently used for building loads |  |  |  |
|     |                              | such as lighting and space conditioning, an EMS/BMS is versatile enough to   |  |  |  |
|     |                              | provide energy savings in process operations in manufacturing facilities.  |  |  |  |
|     |                              | Control functions include everything from basic stop/start functions to more   |  |  |  |
|     |                              | complex, chiller optimization routines.  |  |  |  |
| 08  | Ceiling Fans                 | Energy consumption $\leq 65$ watt  |  |  |  |
|     |                              | (at least 5 fans)  |  |  |  |
|     | 1                            | Energy Efficient Ceiling fan: An energy efficient ceiling fan can save around  |  |  |  |
|     |                              | Energy Efficient Celling fan: An energy efficient celling fan can save around  |  |  |  |
|     |                              | 35% energy with compared to regular ceiling fan.   |  |  |  |
| 09  | Rain water<br>Collection and |  |  |  |  |

|    | Discharge     | water.   |                   |   |  |  |
|----|---------------|--|-------------------|---|--|--|
| 10 | WTP           | Water Treatment Plant including recycling and reuse system with energy                           |                   |   |  |  |
|    |               | efficient pumping system (5KLD)minimum   |                   |   |  |  |
| 11 | Hot Water     | Solar Water Heater: Solar water heating systems use solar panels, called                         |                   |   |  |  |
|    | system        | collectors, fitted to roof.  |                   |   |  |  |
|    |               | (200 Liter/hour) minimum   |                   |   |  |  |
|    |               |  |                   |   |  |  |
| 12 | Motor Usage   | Variable Frequency Drive   |                   |   |  |  |
|    |               | VFDs (Variable Frequency Drives) are basically a green energy savings                            |                   |   |  |  |
|    |               |  |                   | or load on a motor to the amount of                                       |  |  |
|    |               |  | that amount of    | work. This reduces excess energy  |  |  |
|    |               | from being wasted.<br>Soft Starter:  |                   |   |  |  |
|    |               |  | used with motors  | to temporarily reduce the load and  |  |  |
|    |               |  |                   | to temporarily reduce the load and<br>ly increasing voltage to the motors |  |  |
|    |               | resulting in smooth accele   |                   |   |  |  |
| 13 | Water Fixture |  |                   | owerheads and flushes that use less                                       |  |  |
| 15 |               |  |                   | ction of cleaning as effectively as                                       |  |  |
|    |               |  |                   | nportant aspect, especially as fresh                                      |  |  |
|    |               |  |                   | epleted at a rate faster that they are                                    |  |  |
|    |               | replenished.   |                   |   |  |  |
|    |               |  |                   |   |  |  |
|    |               |  |                   | , auto control valves, aerators, flow                                     |  |  |
|    |               |  | ucing devices can | n result in significant reduction in                                      |  |  |
|    |               | water consumption.   |                   |   |  |  |
|    |               |  |                   |   |  |  |
|    |               | The following low flow fixtures shall be used:   |                   |   |  |  |
|    |               | Type of fixtures   | Quantity          | Unit  |  |  |
|    |               | Water closets  | Dual Flush        | liters/flushing cycle   |  |  |
|    | · ·           |  | (6/4)             | (full/low)  |  |  |
|    |               | Shower   | 9.5               | liters/min at 500 kPa   |  |  |
|    |               | Urinals  | Auto Sensor       |   |  |  |
|    |               | Ulliais  | Auto Sensor       |   |  |  |
|    |               | Hand wash taps   | 6 Auto            | liters/min at 400 kPa   |  |  |
|    |               |  | Sensor/Push       |   |  |  |
|    |               |  | system            |   |  |  |
|    |               | Kitchen/pantry faucets   | 6                 | liters/min at 400 kPa   |  |  |
| 1. |               |  |                   |   |  |  |
| 14 | Masonry       | Concrete Hollow Blocks / Interlocking Concrete Block/ lightweight Cellular                       |                   |   |  |  |
|    | Materials     | Concrete/ Clay Brick of Auto Brick factory with efficient kiln.                                  |                   |   |  |  |
|    |               | (at list 60% of total Masonry wall)  |                   |   |  |  |
|    |               | The Factory should have energy audit report from     netional (International Cartificing agong)  |                   |   |  |  |
| 15 | Steel         | national/International Certifying agency Reinforcement steel from the energy efficient factories |                   |   |  |  |
| 15 | 51001         | Reinforcement steel from the energy efficient factories  |                   |   |  |  |
|    |               | The Factory should have energy audit report from<br>national/International Certifying agency     |                   |   |  |  |
|    |               | <ul> <li>&gt;10% Recycle Materials content</li> </ul>  |                   |   |  |  |
| 16 | Ready mix     | Natural Stone chips as course aggregate  |                   |   |  |  |
| 10 | concrete      |  |                   |   |  |  |
|    | concrete      | The Factory should have energy audit report from   |                   |   |  |  |

|    |              | national/International Certifying agency                                       |  |  |  |
|----|--------------|--|--|--|--|
|    |              | • Should have recycle content or fly ash.                                      |  |  |  |
| 17 | Paint        | Low Volatile Organic Compounds (VOC) paint (VOC level <10g/L)                  |  |  |  |
|    |              | • The Factory should have energy audit report from                             |  |  |  |
|    |              | national/International certifying agency                                       |  |  |  |
| 18 | Low- E-Glass | Solar Heat Gain Coefficient (SHGC) 0.4 (maximum) or Shading Coefficient        |  |  |  |
|    |              | (SC) 0.46 (maximum)  |  |  |  |
|    |              | Visible Light Transmittance (VLT) of the glazed element should not be lower    |  |  |  |
|    |              | than 35%.  |  |  |  |
|    |              | Double Glazing Window:   |  |  |  |
|    |              | Energy-efficient glazing keeps home or office cooler and quieter as well as    |  |  |  |
|    |              | reducing our energy bills. That might mean double or triple-glazing, secondary |  |  |  |
|    |              | glazing, or just heavier curtains. Double-glazed windows have two sheets of    |  |  |  |
|    |              | glass with a gap in between, usually about 16mm, to create an insulating       |  |  |  |
|    |              | barrier.   |  |  |  |
| 19 | UPVC window  | Window frame made of UPVC (all Curtain and Sliding windows of a building)      |  |  |  |
|    | frame        | The Factory should have energy audit report from                               |  |  |  |
|    |              | national/International Certifying agency                                       |  |  |  |
| 20 | Insulation   | Roof top Insulation & heat reflective paint (Solar Radiation Index value >78)  |  |  |  |
|    |              | or Insulation blokes   |  |  |  |
|    |              |  |  |  |  |

### 2. Annexe-2: List of Applicable National Regulations and International Treaties

| Relevant local regulation                  | Relevant international treaties and conventions   |
|--|---|
|  | for which Bangladesh is a signatory               |
| National Environmental Policy, 1992        | • Occupational Hazards Due to Air Pollution,      |
| • Environment Pollution Control Ordinance, | Noise and Vibration (Geneva), 1977                |
| 1977                                       | • Prevention and Control of Occupational          |
| • Environmental Quality Standards for      | Hazards (Geneva), 1974                            |
| Bangladesh, 1991                           | • Occupational Safety and Health in Working       |
| National Environment Management Action     | Environment (Geneva), 1981                        |
| Plan (NEMAP), 1995                         | • Occupational Health Services (Geneva), 1985     |
| • Environment Conservation Act, 1995 and   | • International Convention on Climate Change      |
| amended in 2002                            | (Kyoto Protocol), 1997                            |
| • Environment Conservation Rules, 1997 and | • UN Framework Convention on Climate Change       |
| amended in 2003                            | (New York), 1992                                  |
| • EIA Guidelines For Industry, 1997        | • International Convention on Civil Liability for |
| Labour Policy 2012                         | Oil Pollution Damage (Brussels), 1969             |
| • Bangladesh Labour Act, 2006              | • Convention on Oil Pollution (London), 1990      |
| • Labour Welfare Foundation law 2006       | • UN Convention on the Law of the Sea             |
| • Bangladesh Labour (Amended)Law, 2013     | (Montague Bay), 1982                              |
| • Labour Relations under Labour Laws, 1996 | • Civil Liability on Transport of Dangerous       |

| <ul> <li>National Child Labour Elimination Policy, 2010</li> <li>State Paladesh Factory Act, 1965</li> <li>Bangladesh Factory Rules, 1979</li> <li>OSH Policy, 2011</li> <li>The Employer's Liability Act, 1938</li> <li>The Employer's Liability Act, 1938</li> <li>Maternity Benefit Act, 1950</li> <li>Workmen's Compensation Act, 1923</li> <li>The Employment of Children Act, 1938</li> <li>Bangladesh Industrial Act 1974</li> <li>National 3-R Strategy, 2010 (3R: Reduce, Reuse and Recycle)</li> <li>Ship-Breaking and Hazardous Waste Management Rules, 2010</li> <li>Draft National Solid Waste Management Rules, 2010</li> <li>Draft National Solid Waste Management Rules, 2010</li> <li>Draft National River Conservation Act, 2011</li> <li>Disaster Management Act, 2012</li> <li>Public Health Emergency Provisions Ordinance, 1994</li> <li>Climate Change Act, 2010</li> <li>National Plan for Disaster Management Act, 2012</li> <li>Public Health Emergency Provisions Ordinance, 1994</li> <li>Climate Change Act, 2010</li> <li>National Plan for Disaster Management 2010-2015</li> <li>Sound Pollution Law, 2006</li> <li>Water Supply and Sewerage Authority Ordinance, 1982</li> <li>National Health Policy, 2011</li> <li>National Bealth Policy, 2011</li> <li>National Bealth Policy, 2011</li> <li>National Biodiversity Strategy and Action plan (2004)</li> </ul>  | • National Child Labour Elimination D 1 | Goods (Conava) 1090 |
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| <ul> <li>National 3-R Strategy, 2010 (3R: Reduce,<br/>Reuse and Recycle)</li> <li>Ship-Breaking and Hazardous Waste<br/>Management Rules, 2010</li> <li>Biomedical Waste Management Rules,<br/>2008</li> <li>Draft National Solid Waste Management<br/>Rules, 2010</li> <li>Draft National River Conservation Act,<br/>2011</li> <li>Disaster Management Act, 2012</li> <li>Public Health Emergency Provisions<br/>Ordinance, 1994</li> <li>Climate Change Act, 2010</li> <li>National Plan for Disaster Management<br/>2010-2015</li> <li>Sound Pollution Law, 2006</li> <li>Water Supply and Sewerage Authority<br/>Ordinance, 1963</li> <li>Noise Control Rules</li> <li>National Health Policy, 2011</li> <li>National Land Use Policy</li> <li>The Land Acquisition Act, 1894</li> <li>The Acquisition and Requisition of<br/>Immovable Property Ordinance, 1982</li> <li>National Biodiversity Strategy and Action<br/>plan (2004)</li> </ul>  |   |                     |
| <ul> <li>Chatonal 3-K Strategy, 2010 (SK. Reduce,<br/>Reuse and Recycle)</li> <li>Ship-Breaking and Hazardous Waste<br/>Management Rules, 2010</li> <li>Biomedical Waste Management Rules,<br/>2008</li> <li>Draft National Solid Waste Management<br/>Rules, 2010</li> <li>Draft National River Conservation Act,<br/>2011</li> <li>Disaster Management Act, 2012</li> <li>Public Health Emergency Provisions<br/>Ordinance, 1994</li> <li>Climate Change Act, 2010</li> <li>National Plan for Disaster Management<br/>2010-2015</li> <li>Sound Pollution Law, 2006</li> <li>Water Supply and Sewerage Authority<br/>Ordinance, 1963</li> <li>Noise Control Rules</li> <li>National Land Use Policy</li> <li>The Acquisition Act, 1894</li> <li>The Acquisition and Requisition of<br/>Immovable Property Ordinance, 1982</li> <li>National Biodiversity Strategy and Action<br/>plan (2004)</li> <li>Convention on Wetlands of International<br/>Importance Especially as Waterfowl Habitat<br/>(Ramsar), 1971</li> <li>Convention on The Conservation of Migratory<br/>Species of Wild Animals (Bonn), 1979</li> <li>Convention on International Trade in<br/>Endangered Species of Wild Fauna and Flora</li> <li>UN Convention on The Law of The Sea<br/>(Montague Bay), 1982</li> </ul>   | -                                       |                     |
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| <ul> <li>National Health Policy, 2011</li> <li>National Land Use Policy</li> <li>The Land Acquisition Act, 1894</li> <li>The Acquisition and Requisition of<br/>Immovable Property Ordinance, 1982</li> <li>National Biodiversity Strategy and Action<br/>plan (2004)</li> </ul>   |   |                     |
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| <ul> <li>The Land Acquisition Act, 1894</li> <li>The Acquisition and Requisition of<br/>Immovable Property Ordinance, 1982</li> <li>National Biodiversity Strategy and Action<br/>plan (2004)</li> </ul>   |   |                     |
| <ul> <li>The Acquisition and Requisition of<br/>Immovable Property Ordinance, 1982</li> <li>National Biodiversity Strategy and Action<br/>plan (2004)</li> </ul>   |   |                     |
| <ul> <li>Immovable Property Ordinance, 1982</li> <li>National Biodiversity Strategy and Action plan (2004)</li> </ul>  | _                                       |                     |
| <ul> <li>National Biodiversity Strategy and Action<br/>plan (2004)</li> </ul>  | 1 1 1                                   |                     |
| plan (2004)  |   |                     |
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| • Bangladesh Wildlife Conservation and   | Bangladesh Wildlife Conservation and    |                     |

| Security Act, 2012                         |   |
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| • Bangladesh Wild Life (Preservation) Act, |   |
| 1974                                       |   |
| • Bio Safety Rules, 2012                   |   |
| • Forest (Amendment) Act, 2012             |   |
| • Forest Policy, 1994                      |   |
| Social Forestry Rules, 2004                |   |
| • National Forest Policy and Forest Sector |   |
| Review (1994,2005)                         |   |
| • Draft Tree Conservation Act, 2012        |   |
| • The Private Forests Ordinance Act, 1959  |   |
| • Forest Transit Rule, 2011                |   |
| • Deer Rearing Policy, 2009                |   |
| • The Protection and Conservation of Fish  |   |
| Act 1950                                   |   |
| Draft Wetland Policy, 1998                 |   |
| • The Protection and Conservation of Fish  |   |
| Rules (1985)                               |   |
| • The Protection and Conservation of Fish  |   |
| Act, 1950                                  |   |
| National Conservation Strategy, 1992       |   |
| Private Fisheries Protection Act 1889      | Ť |
| Marine Fisheries ordinance 1983            |   |
| • Revised National Conservation Act, 2010  |   |
| • The Antiquities Act, 1968                |   |
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