



Supporting Green Bond Development for Ukraine

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The views expressed in this publication are those as presented by the author and do not necessarily represent those of the United Nations Development Programme

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Abstract

This report was written as a part of the Supporting Green Recovery in Ukraine project by the United Nations Development Programme (UNDP) office in Ukraine.

The overall objective of the assignment is to support establishment of the green bonds market in Ukraine through elaboration of the recommendations on the Green Bonds Standard (GBS), revision of the Concept and the Action Plan, and estimation of the volumes of the green bond market.

This report covers five Parts:

Part I presents the green bond standards for EU, ICMA, ASEAN, China and UK respectively. It also presents the disclosure frameworks covering background, objectives, disclosure requirements and other issues for Sustainable Finance Disclosure Regulations (SFDR), Task Force on Climate-related Financial Disclosures (TCFD) and Taskforce on Nature-related Financial Disclosures (TNFD) respectively. Part I then analyses the green bond standards for EU, ICMA, ASEAN, China and UK; and disclosure frameworks for SFDR, TCFD, and TNFD respectively. It finally recommends the best practice of green bond standard and disclosure framework suitable for Ukraine.

Part II establishes a set of regulatory and legal guidelines and procedures (Regulation) for Ukraine green bond market from the perspectives of: (i) mechanisms for financing and re-financing green projects, (ii) evaluating and selecting green projects, (iii) procedures for monitoring the use and management of funds, (iv) reporting standards, (v) control procedures, (vi) supervision by the National Securities and Stock Market Commission (NSSMC), and (vii) incentives for GB Issuance.

Part III and IV present a systematically legal and regulatory review of the Green Bond Market Concept (the Concept) and the Action Plan; and provides a set of recommendations based on the results of the review.

Part V estimates the potential volumes of the green bond market in Ukraine based on the current issuance and cumulative issuance of the green bonds, and their relationships with economic variables.

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**Part 1 Green bond Standards/guidance and the best
Practices Suitable for Ukraine**

(Deliverable 1)

Executive Summary

The terms of reference (TOR) stipulates that the consultant should submit a series of deliverables within the framework of the mission. The completion of this report marks the first of 5 reporting requirements set out in the TOR

This report presents the green bond standards covering the key components of the standards for EU, ICMA, ASEAN, China and UK respectively. EU GBS and ICMA Green Bond Principles are the two most important green bond standards/principles in the world, while the ASEAN and UK green bond standards are aligned with ICMA green bond principles. The China GBS is generally complied with international practice, but it is more likely to be a guideline/regulation rather than a standard. The UK GBS is in fact a sovereign green bond standard.

This report also presents the disclosure frameworks covering background, objectives, disclosure requirements and other issues for Sustainable Finance Disclosure Regulations (SFDR), Task Force on Climate-related Financial Disclosures (TCFD) and Taskforce on Nature-related Financial Disclosures (TNFD) respectively. SFDR is the new EU regulation while TCFD and TNFD are the most popular frameworks in the world.

This report then analyses the green bond standards for EU, ICMA, ASEAN, China and UK; and disclosure frameworks for SFDR, TCFD, and TNFD respectively. The analysis focuses on advantages and disadvantages for each of green bond standards and disclosure frameworks.

This report finally recommends the best practice of green bond standard and disclosure framework suitable for Ukraine. It is recommended that Ukraine should fully adopt the EU GBS in the long term and amended EU GBS in the short term. Ukraine should make SFDR aligned disclosures fully mandatory across the economy in the long term and may also adopt TCFD or TNFD as a voluntary disclosure framework in the short term.

I Introduction

1.1 Background

Green finance has been one of the important areas of UNDP support to the Government of Ukraine. UNDP supports mobilization of public and private green finance through implementation of innovative financial instruments (e.g. green bonds, sustainability bonds, etc.). In addition, UNDP provides assistance to different international and regional initiatives aimed at developing green bonds market in developed and developing countries (e.g. Climate Bonds Initiative, CBI).

In January 2019 the Committee on Fuel and Energy (sub-committee on Sustainable Development, Strategy and Investments) of the Parliament of Ukraine requested to develop a Green Bonds concept applicable for Ukraine. Adoption of road maps for the introduction of the green bonds market is a common practice worldwide. Governments and central banks use them as a benchmark when developing the strategies and approaches to building a green bond market and attracting green finance. In addition, Ukraine needs to introduce guidelines, as well as procedures for issuance of sovereign and municipal green bonds.

As such, the State Agency on Energy Efficiency and Energy Savings of Ukraine (SAEE) intended to introduce the green bonds market and submitted to the Government of Ukraine a Concept and an Action Plan for its implementation based on the Action Plan for the implementation of the Energy Sector Reform (2018) of the Energy Strategy of Ukraine up to 2035. SAEE has approached relevant donor-funded programmes/projects for assistance.

In response to the needs for meeting the objectives above, UNDP seeks the services of a qualified international consultant to provide required expertise.

1.2 Objective and Scope

The overall objective of the assignment is to support establishment of the green bonds market in Ukraine through elaboration of the recommendations on the Green Bonds Standard, revision of the Concept and the Action Plan for establishing the green bonds market in Ukraine, estimation of the volumes of the green bond market in Ukraine¹.

As defined in the TOR, the scope of this assignment includes support for developing an enhanced strategic vision, strengthened project oversight²:

- Analysis of green bond standards/guidance developed in EU and other countries; identification of the best practices suitable for Ukraine including

- Description of main relevant standards by sector and timeline for expansion to new sectors
- Analysis of Task Force on Climate-related Financial Disclosures (TCFD) and Taskforce on Nature-related Financial Disclosures (TNFD) and other relevant disclosure frameworks

- Development of recommendations for the necessary legal and regulatory changes to introduce Green Bonds Standard in Ukraine.

- Development of proposals on regulatory and legal guidelines and procedures for green bonds market, including for the sovereign and municipal green bonds (on the procedure for evaluating and selecting green projects, mechanisms for financing and re-financing green

¹ TOR, Supporting Green Recovery in Ukraine

² TOR, Supporting Green Recovery in Ukraine

- projects, procedures for monitoring the use and management of funds, control procedures and reporting standards).
 - Development of proposals for the regulatory incentives for the green bond market.
- Legal and regulatory review of the Green Bond Market Concept, prepared by the Working Group on Green Finance
 - Legal and regulatory review of the Action Plan for the creation of the green bonds market (prepared by the Working Group on Green Finance)
 - Estimations of the potential volumes of the green bonds market in Ukraine

The TOR stipulates that the consultant should submit a series of deliverables within the framework of the mission. The completion of this report marks the first of 5 reporting requirements set out in the TOR:

- Deliverable 1: Written analysis of green bond standards/guidance developed in EU and other countries; identification of the best practices suitable for Ukraine
- Deliverable 2: Development of the set of recommendations for the necessary legal and regulatory changes to introduce Green Bonds Standard in Ukraine in a form of written report
- Deliverable 3: Legal and regulatory review of the Green Bond Market Concept, prepared by the Working Group on Green Finance in a form of analysis papers.
- Deliverable 4: Legal and regulatory review of the Action Plan for the creation of the green bonds market (prepared by the Working Group on Green Finance).
- Deliverable 5: Estimations of the potential volumes of the green bonds market in Ukraine. Two presentations on study findings to the stakeholders in Ukraine.

II Green Bond Standards

2.1 EU

Action 2 of the Commission's Action Plan on financing sustainable growth calls for the creation of standards and labels for green financial products. The Technical Expert Group (TEG) has been asked to prepare a report on an EU green bond standard by Q2 2019, building on current best practices. By 2019, three key documents have been produced: TEG report on EU green bond standard, 18 June 2019; Summary of the TEG report on EU green bond standard, 18 June 2019; and Usability guide for the EU green bond standard, 09 March 2020.

The proposed regulation was first published by the European Commission (the "Commission") in July 2021 as part of a wider Strategy for Financing the Transition to a Sustainable Economy. In December 2021, the rapporteur of the EU GBS file at the European Parliament published a draft report, with some amendments representing a fundamental shift from the Commission's original proposals.

This section analyses the fundamental aspects of the Standard in the context of the EU green bond market and existing EU legislation in the area of sustainable finance and financial regulation.

1. Scope and Objective of the EU Green Bond Standard

The European Green Bond Standard (EU GBS) is a voluntary, non-legislative Standard to enhance the effectiveness, transparency, comparability and credibility of the green bond market and to encourage the market participants to issue and invest in EU green bonds.³

2. Definition of EU Green Bond

An EU Green Bond is any type of debt instrument issued by any European or other issuer that is consistent with the EU GBS, and therefore meets the conditions below⁴:

- The issuer's Green Bond Framework is aligned with the EU GBS.
- The proceeds should be exclusively used to finance or refinance in part or in full new and/or existing Green Projects as defined in the Standard, and should be presented in the bond documentation.
- The alignment of the bond with the EU GBS should be confirmed by an qualified verifier based on the Standard.

3. Core Components of the EU GBS

(1) Green Projects

Proceeds from issuing EU Green Bonds should be used only to finance or refinance the green projects, subject to confirmation by an qualified Verifier. The project should⁵:

- meet at least one of the Environmental Objectives as defined in the EU Taxonomy Regulation (the Environmental Objectives): (i) climate change mitigation, (ii) climate change adaptation, (iii) sustainable use and protection of water and marine resources, (iv) transition to a circular economy; (v) pollution prevention and control and (vi) protection and restoration of biodiversity and ecosystems;
- not have significant harm on any of the other objectives;
- meet the minimum safeguards, which involve alignment with the OECD Guidelines for Multinational Enterprises and UN Guiding Principles on Business and Human Rights, including the International Labour Organisation's (ILO) declaration on Fundamental Rights and Principles at Work, the eight ILO core conventions, the International Bill of Human Rights and more stringent requirements in EU law; and
- meet the Technical Screening Criteria (TSC).

Green Projects can be:

- physical assets and financial assets, tangible or intangible, and part of working capital.
- capital expenditure and selected operating expenditures such as maintenance costs associated with green assets and R&D expenditures. The operating costs are normally excluded.
- relevant public investments, public expenditure and public subsidies for sovereigns and sub-sovereigns.

A specific green asset or expenditure can only be a Green Project directly financed by one or several dedicated green instruments up to the combined equivalent of its full value.

(2) Green Bond Framework

The issuer should develop a Green Bond Framework (GBF), which follows the voluntary alignment of the green bonds with the EU GBS and cover other details such as the proposed use-of-

³ Summary of the TEG report on EU green bond standard, 18 June 2019

⁴ TEG report on EU green bond standard, 18 June 2019

⁵ TEG report on EU green bond standard, 18 June 2019

proceeds and green bond strategy and processes. In particular, the GBF consists of the following components⁶:

- The environmental objectives of the EU Green Bond and how the issuer's strategy is consistent with such objectives, and also the reasons for issuing the green bond;
- The process through which the issuer decides how Green Projects are consistent with the EU Taxonomy and, also TSC if applicable, and minimum safeguards with the support of a qualified Verifier. Issuers are also required to release any green standards or certifications used for project selection;
- An illustration of the Green Projects to be financed or refinanced by the EU Green Bond. Issuers are encouraged to release the information on whether the Green Projects contribute directly to the achievement of the environmental objective or have no harm on other objectives.
- The process for connecting the issuer's lending or investment operations for Green Projects to the EU Green Bond issued. The issuer should ensure that the amount allocated equal to the net proceeds of green bond issuance and document the allocation through a formal internal process.
- An illustration of the reporting (e.g. expected frequency, content, metrics), and if available the methodology and assumptions used for developing the key impact metrics.
- As a general principle, the subsequent changes to the Taxonomy will not affect the outstanding EU Green Bonds. In contrast, new GB issuance should be consistent with the most recent version of the Taxonomy as revised from time to time.
- The GBF should be released on the issuer's website or any other media before or at the time of the issuance of an EU Green Bond and should be accessible up to the end of the EU Green Bond period.

(3) Reporting

There are two types of reporting under the EU GBS: Allocation Reporting and Impact Reporting.

For Allocation Reporting, issuers should at least provide an annual report, until full allocation of the bond proceeds to Green Projects. Verification is only needed for the Final Allocation Report.

The Allocation Report normally covers:

- confirmation of alignment with the EU GBS;
- Detailed allocated amounts by Green Projects or by portfolio, and more detailed reporting is recommended; and
- Detailed distribution of Green Projects by region.

Issuers are encouraged to release the information on whether the Green Projects meet the Environmental Objectives or do not harm any of the other objectives. For Green Projects that meet the objective of climate change mitigation, issuers must also disclose the information on whether the Green Projects are already close to zero carbon or contribute to a transition.

The Final Allocation Report for an EU Green Bond to be released upon full allocation must contain the information on all amounts allocated to Green Projects at least by sector.

For Impact Reporting, issuers should submit the report on impact of Green Projects at least once during bond lifetime after full allocation of the bond proceeds to Green Projects.

The Impact Report should contain:

- An illustration on the Green Projects;
- The Environmental Objective(s) met by the Green Projects;

⁶ TEG report on EU green bond standard, 18 June 2019

- Detailed descriptions of Green Projects by nature of financing and refinancing;
- Information associated with the projects' environmental impacts; and
- Information related to the methodology and assumptions used to assess the Green Projects impacts.

Although verification of the Impact Reporting is not mandatory, issuers are recommended to send their impact reporting for review by an independent third party.

Both the Allocation Report and the Impact Report may include several bond issuances under the same Green Bond Framework. The issuer may release separate Allocation and Impact Reporting or combined report. Allocation Reporting and Impact Reporting should be released on the issuer's website or any other media. The Final Allocation Report and Impact Report published upon full allocation should be accessible until end of such EU Green Bond term.

(4) Verification

An external Verifier should be hired to confirm:

- the consistency of their GBF with the EU GBS before or at the time of issuance; and
- the allocation of the proceeds to green eligible projects based on the Allocation Reporting after full allocation of proceeds.

Verification for alignment with the substantial contributions, do no significant harm (DNSH) and minimum safeguards, could comprise the confirmation of the existence of appropriate processes and due diligence systems designed to assess, mitigate and remedy risks and issues that may emerge in connection to these qualitative criteria.

Under a programme with the same GBF, several bonds issued can be confirmed through an initial Verification. For transactions that are fully allocated at issuance, the initial Verification can include the verification of the Allocation Reporting.

All verifications should be released on the issuer's website. The Verification of the GBF must be publicly accessible before or at the time of the issuance of its EU Green Bond. Verification of the Final Allocation Report must be publicly available together with the release of the Final Allocation Report, or within one year after the release.

Verification service provider(s) are supposed to register and meet the following conditions: (i) professional codes of conduct associated with business ethics, conflicts of interest and independence; (ii) professional minimum qualifications and quality assurance and control; and (iii) standardised procedures for Verification. Verification service providers must also present their relevant credentials and expertise and the scope of the review conducted in the Verification Report.

2.2 ICMA

The International Capital Market Association (ICMA) Green Bond Principles (GBP) is a voluntary best practice guideline which was established in 2014 by a consortium of investment banks: Bank of America Merrill Lynch, Citi, Crédit Agricole Corporate and Investment Bank, JPMorgan Chase, BNP Paribas, Daiwa, Deutsche Bank, Goldman Sachs, HSBC, Mizuho Securities, Morgan Stanley, Rabobank and SEB.

The GBP focuses on the required transparency, accuracy and integrity of information that will be released by issuers to stakeholders.

The GBP has four components:

- Use of proceeds: to finance and/or refinance, in whole or in part, eligible green projects.
- Project evaluation and selection: varies based on individual nature of projects and selection criteria
- Management of proceeds: ringfenced into separate accounts in some cases.
- Reporting: using external third-party verifier, or can be self-reporting and published at least annually (e.g. on website of issuer).

The Green Bond Principles does not define “green”, and leave it to the issuer to determine. The principles proposes the following broad green project categories:

- Energy
- Buildings
- Transport
- Water management
- Waste management & pollution control
- Nature-based assets including land use, agriculture and forestry
- Industry & energy-intensive commercial
- Information technology & communications (ICT)

The ICMA updated its Green Bond Principles to reflect the recent development of the market for green bonds. The IMCA Green Bond Principles 2021, the new version of the Green Bond Principles, includes further suggestions on higher extent of transparency requirements. Especially, the external reviews must be undertaken based on the ICMA Guidelines and the results must be publicly available. In addition, the further transparency at issuer level must be realised by releasing the information on: (i) sustainability strategies and commitments and if applicable; and (ii) the degree of alignment of projects with official or market based taxonomies.

The updated version of the ICMA Green Bond Principles extends the eligible green projects in the category "Climate change adaptation" to incorporate projects that make infrastructure more resilient to impacts of climate change. Further, the Blue Bonds aimed at focusing on the importance of the sustainable use of maritime resources and of the promotion of related sustainable economic activities are included in Annex I and are also considered as green bonds.

As ICMA Green Bond Principles is aligned with ASEAN and UK green bond standards, the detailed components will be discussed in combination with the two standards.

2.3 ASEAN

In November 2017, the ASEAN Capital Markets Forum (ACMF), comprising market regulators from the ten ASEAN countries, released the ASEAN Green Bond Standards, a set of voluntary guidelines based on the international Green Bond Principles, to create a green asset class for the ASEAN region.

The ASEAN Green Bond Standards intends to enhance transparency, consistency and uniformity to help reduce costs for issuers and investors.

1. Scope and Objective of the ASEAN GBS

The scope of the ASEAN GBS which was first issued in November 2017 and revised in October 2018 includes:

- The ASEAN GBS shall be applicable to issuance of ASEAN Green Bonds.
- The ASEAN GBS is consistent with the GBP issued by ICMA.
- Bonds that integrate Green and Social Projects based on the ASEAN GBS and ASEAN Social Bond Standards are called ASEAN Sustainability Bonds, and guided separately by the ASEAN Sustainability Bond Standards.

The overall objectives of ASEAN GBS are intended to provide additional guidance on the application of the GBP as well as to enhance transparency, consistency and uniformity of ASEAN Green Bonds.⁷

2. Condition for Issuance of ASEAN Green Bonds

- Issuer must be an ASEAN Issuer.
- If issuer is a non-ASEAN Issuer, the eligible Green Projects must be located in any of the ASEAN countries.
- Green Bonds issuances must be initiated from any of the ASEAN member countries.

3. Core Components of the Green Bond Principles (GBP)

(1) Use of Proceeds

The allocation of proceeds from the ASEAN Green Bonds should be presented in the documentation in issuance of the ASEAN Green Bonds.

The Issuer should release the information below:

- The types of eligible Green Projects financed by the ASEAN Green Bonds proceeds; and/or
- The information on specific Green Projects to be finance by the ASEAN Green Bonds proceeds.

Green Projects should indicate the environmental benefits, which will be assessed and, quantified by the Issuer.

The Green Projects must meet the environmental objectives such as climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control. The project categories include the most commonly used types of projects and other related and supporting expenditures such as research and development, financed by the green bond:

- Renewable energy;
- Energy efficiency;
- Pollution prevention and control;
- Environmentally sustainable management of living natural resources and land use;
- Terrestrial and aquatic biodiversity conservation;
- Clean transportation;
- Sustainable water and waste water management;
- Climate change adaptation;
- Eco-efficient and/or circular economy adapted products, production technologies and processes; and
- Green buildings which meet regional, national or internationally recognised standards or certifications.

In particular, fossil fuel power generation projects are not included in the ASEAN GBS.

(2) Project Evaluation and Selection

The issuer of ASEAN Green Bonds must provide the following information to the investors:

- the environmental sustainability objectives;
- how the projects meet the eligible Green Project categories listed above; and

⁷ ASEAN GREEN BOND STANDARDS, November 2017

- the related eligibility criteria applied to identify and manage potentially material environmental and social risks associated with the Green Projects.

The Issuer should set up the process for project evaluation and selection before the issuance of the ASEAN Green Bonds and release the related information to investors in the issuance documentation of the ASEAN Green Bonds.

Issuers are recommended to provide the information of the Issuer's objectives, strategy, policy and/or processes connecting to environmental sustainability. Issuers are also recommended to release any green standards or certifications used for project selection.

The Issuers are also encouraged to have the project evaluation and selection to be supported by an external review.

The Issuer should provide the following information on a website provided by the Issuer during the issuance and the term of ASEAN Green Bonds:

- project evaluation process;
- use of proceeds; and
- report of external review on the process.

(3) Management of Proceeds

Before the issuance, in the documentation for the issuance of the ASEAN Green Bonds, the Issuer should provide investors with the information related to the process for managing the net proceeds of the Green Bonds.

The net proceeds of the ASEAN Green Bonds, should be transferred into a special account which can be tracked by the Issuer and linked to the Issuer's Green Projects. Nevertheless, the total amount allocated from the net proceeds for the eligible Green Projects does not need to occur simultaneously.

During the period of ASEAN Green Bond issuance, the balance of the net proceeds should be consistent with the amount of allocations to eligible Green Projects made.

The Issuer should provide investors in the documentation for the issuance of the ASEAN Green Bonds with the intended use for the amount of unallocated net proceeds.

The Issuers are encouraged to utilise the service of auditor, or other third party, to verify the internal tracking method and the ASEAN Green Bonds proceed allocation.

In case that the Issuer utilizes the services of auditor or other third party, the Issuer should release the report produced by the auditor or other third party on a website provided by the Issuer during the issuance of the ASEAN Green Bonds.

(4) Reporting

Issuers should release annual report to investors and are recommended to provide more frequent reports on the use of proceeds until complete allocation. The annual report must cover a list of the projects financed by the ASEAN Green Bonds, and a brief illustration of the projects and the amounts distributed, and their intended impact.

In case of confidentiality or limited details that can be disclosed, the Issuer should provide the information in generic terms or on an aggregated portfolio basis.

Issuers are encouraged to utilise the qualitative performance indicators and quantitative performance indicators where possible and also provide the methodology and/or assumptions behind the quantitative measures.

Issuers are encouraged to provide annual report on the use of proceeds supported by a verification by an external reviewer as well as any relevant updates of the external review.

The annual reporting and the external review on the annual reporting should be available on the website assigned by the Issuer over the period of the ASEAN Green Bonds.

4. External Review

Issuers are encouraged to provide an external reviewer for their ASEAN Green Bonds issuances.

The external reviewer will undertake full or partial assessment of the Issuer's ASEAN Green Bonds framework, and confirm the consistency with all four core components as presented in the ASEAN GBS.

The external reviewer should have the relevant expertise and experience in verifying the components of the ASEAN Green Bonds. He/she should also present his/her relevant credentials and expertise, and the scope of the external review report.

Independent external reviews may cover an ASEAN Green Bonds framework/programme, an individual ASEAN Green Bonds issuance, the underlying assets, and/or procedures, which can be classified into:

- **Second Party Opinion.** A second party opinion usually covers an assessment of the alignment with the ASEAN GBS including an evaluation of the Issuer's overall objectives, strategy, policy and/or processes associated with environmental sustainability, and the environmental features of the type of projects financed with the use of proceeds. The institution that issues the second party opinion must be independent.
- **Verification.** Verification is an assessment against a defined set of criteria, particularly relating to business processes and/or environmental criteria. Verification might concentrate on consistency with internal or external standards or claims made by the Issuer. In addition, it might include the environmentally sustainable features of underlying assets by referencing external criteria. It might also include Issuer's internal tracking method for use of proceeds, allocation of funds from ASEAN Green Bonds proceeds, statement of environmental impact or alignment of reporting with the ASEAN GBS.
- **Certification.** A certification determines the alignment with certain criteria and is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria. An Issuer might need a certification against a recognised external green standard or label.
- **Green Bond Scoring/Rating.** Green Bond Scoring/Rating provides a classification based on the environmental performance data, the process relative to the ASEAN GBS, or another benchmark. Such scoring/rating is different from credit ratings, which may not quantify the material environmental risks.

5. Green Bond Standards by Selected Countries

In addition to the ASEAN Green Bond Standards, the member countries also established their own standards. For example, the Indonesian government established its own national standards of green bonds, "Framework and regulation for green bond issuance," in 2017. The Indonesian government started to issue green bonds following its own standards. The Malaysian government established the SRI Sukuk framework in 2014. Singapore does not establish its own standards, but

acknowledge any internationally recognized standards, including ASEAN green bond standards, which allows the Singapore Stock Exchange to attract international issuers of green bonds.⁸

2.4 China

1. Scope and Objective of the Green Bond Standard

China has published a series of Green Bond Catalogues or guidelines since 2015 when the first edition was released, aiming at achieving a better alignment with the international standards or principles.

In 2021, PBoC, the National Development and Reform Commission (NDRC), and the China Securities Regulatory Commission (CSRC) jointly released the "Green Bond Endorsed Projects Catalogue (Catalogue 2021)," which will facilitate the low-carbon development and green finance development in China. The Catalogue came into effect on 1 July 2021. PBoC has also released questions and answers (Q&As) related to the Catalogue 2021.

2. Definition of Green Bond

Catalogue 2021 clearly indicates that there is strong alignment with international practice in most areas. In particular, full alignment already exists for management of proceeds and Reporting and Disclosure. External Reviews and assurance guidelines are closely aligned, with China taking early steps to strongly encourage the use of independent verification. Further efforts in alignment of the green bond guidelines should focus primarily on green bond definitions, with particular emphasis on development of sector- Specific Criteria and the Basis for Criteria.

3. Core Components of the GBS

(1) Green Projects

The Catalogue 2021 has made significant improvements as compared with last several editions in the three aspects.

- It applied more scientific and precise definitions to green projects. Carbon-intensive projects such as cleaner use of coal and other fossil fuels were no longer listed and the universally applied principle of "DNSH" was adopted.
- It integrated the criteria for defining green projects among regulatory authorities of green bonds for the first time; reduced the costs associated with green bond issuance, trading, and management; and improved the efficiency of the green bond market.
- It provided a stable framework for domestic green bond development.

In particular, for taxonomy in this Catalogue, Level-II and Level-III Categories are aligned with those of the world's mainstream taxonomy of green assets, which will help domestic and overseas entities better identify, inquire, and invest in green assets. Level-IV Category remains consistent with Level-III Category of the 2019 Directive Catalogue for Green Industries, so that national key projects on the transition to green and low-carbon development are supported.

(2) Management of Proceeds

⁸ GREEN BONDS FOR FINANCING RENEWABLE ENERGY AND ENERGY EFFICIENCY IN SOUTHEAST ASIA: A REVIEW OF POLICIES, ADBI Working Paper Series, January 2020

Effective management of proceeds will ensure that all funds from the green bond issuance are allocated to eligible green projects and thus enhance investor confidence.

The proceeds from green bond issuances can be used to finance the new projects or to refinance the existing green assets. In China, the proceeds of bonds in the financial markets is normally used for refinancing existing loans, suggesting that refinancing represent the largest share of the green bond market.

a) Tracking of Proceeds

PBoC has established strict guidelines on tracking the use of proceeds of green bonds. The most important indicator is how much of the proceeds have been allocated to eligible green projects or assets at any given time during the bond period, or how much remains undistributed.

The PBoC's guidelines require that issuers either ring-fence or earmark the proceeds to eligible green projects. Ring-fencing means that issuers open a special account for the green bond proceeds, which is exclusively used to distribute the proceeds to the green projects. Earmarking means that the amount of proceeds raised should equal to funds allocated to green projects or full allocation to eligible projects.

b) Management of Unallocated Proceeds

The PBoC's guidelines also require that issuers should invest temporarily the undistributed proceeds in green bonds from other issuers (only non-financial corporates) or money market instruments with good credit rating and liquidity. This is to prevent the undistributed proceeds from temporarily investing in non-green projects.

In some cases, issuers might have to purchase money market instruments only since the pool of domestic green bonds from non-financial corporates to invest in is not available.

Based on the PBoC guidelines, all green bond proceeds should be distributed to eligible green projects or assets one year after the green bond issuance, including refinancing of existing green assets, new projects or both.

(3) Allocation and Impact Reporting and Disclosure

Reporting by the green bond issuer to investors is an important component of the green bond standard. Reporting provides investors with the information on their investment in addition to the financial performance of the bond: use of proceeds required and environmental impact.

Based on the PBoC's guidelines, issuers must report quarterly on the types of green projects financed by green bond. Issuers are required to report the amount of proceeds required, amount allocated, and remaining balance. In addition, issuers are required to submit a special auditor's report to confirm the use of proceeds and an annual report on the use of proceeds directly to PBoC.

Based on the PBoC guidelines, issuers are recommended to report on the environmental impact of the underlying projects although this is not a compulsory requirement. This suggests that an issuer is required to provide the information associated with the proceeds allocated to the projects, but not the emissions reduced from the investment. There is no requirement to disclose the environmental impact in the guidelines.

(4) Verification: External Reviews and Assurance

There is a range of external reviews and assurance to verify that the eligible green assets are financed by green bond. The most common one is for issuers to use an external review to provide investors with increased confidence in the green credentials of the bond both pre-issuance and

post-issuance. The external reviews can cover use of proceeds, management of proceeds and reporting procedures. In the green bond market, external reviews can be in the form of second-party reviews or third-party certification. Current practice in China is that issuers are encouraged to provide independent review of green bonds credentials.

Based on the PBoC's Guidelines, issuers are recommended to arrange external reviews on the green credentials of the bonds although it is not a compulsory requirement at present. However, the guidelines do not distinguish between second-party reviews and third-party certification.

The first green bonds issued in China since the release of the guidelines showed that issuers followed the suggestions from PBoC and decided to use external reviews of their green bond claims.

Up to now, there is not a standardised procedure to request an external review on green bonds in China. The shortage of standardised procedure can be found from the difference in review reports for different green bond issuances. Different verifiers have their own procedures and criteria as presented in the second-party review. Nevertheless, this will result in increased transaction costs for investors in employing the reviews to assess the green bonds and preventing the comparability of green bonds from different issuers.

However, the crucial issue is that the second-party reviews are not really independent checks of the green claims of the bonds as they are used to support issuers on developing their green bond frameworks. This lack of independence has been an important issue as the market grows and more issuers are involved in the market. Establishing a truly independent reviews is a crucial mechanism to prevent the risks associated with inappropriate environmental claims and fraud.

The third-party certification will ensure the standardization of the external review process. However, third-party certification by following standardised procedures for the external review of a green bond is not found in China.

The third-party certification against green bond standards is emerging in China recently. Approved review service providers include KpmG, EY, DnV GL, Bureau Veritas and Trucost. SynTao Green finance became the first Chinese companies to be approved as a verifier against the international Climate Bonds Standard in January 2016. This suggests that all of these firms can offer issuers third-party certification against the Green Bonds Standards issued by NDRC/PBoC's and international Guidelines.

However, China Green Standard looks more likely to be a regulation/guideline rather than a standard.

2.5 UK

1. Scope and Objective of the Green Bond Standard

The UK Government Green Financing Framework (the "Framework") has been developed based on the 2021 ICMA Green Bond Principles⁹. In addition, HM Treasury intends to align this Framework with the UK's developing classification of environmentally sustainable economic activities (the "UK Taxonomy")¹⁰.

The Framework illustrates how the UK Government intends to finance green projects through the issuance of green gilts and the retail Green Savings Bonds. It provides an important base for identification, selection, verification and reporting of the green projects funded through the

⁹ Green Bond Principles, ICMA, 2021

¹⁰ The UK has regulated to establish the taxonomy framework which sets out the six environmental objectives. It also sets out the requirement to establish technical screening criteria for the first two environmental objectives by 1 January 2023. 13

proceeds of the UK Government's green gilt programme and the retail Green Savings Bonds. The Framework is consistent with the Green Bond Principles as published by the International Capital Market Association (ICMA).¹¹

2. Definition of Green Bond

Green bond in UK includes Sovereign Green Gilt Issuance and Green Savings Bonds. In October 2021, the UK launched its world-first green retail product: the Green Savings Bonds via National Savings and Investments (NS&I), the UK Government's retail savings organization, to enable individuals to support green projects.

This will play a central role in its efforts to mainstream green finance products, attract dedicated funding for climate and environment objectives, deliver much needed infrastructure improvements, and create green jobs across the country.

3. Core Components of the GBS (UK Government Green Financing Framework)

The Framework is aligned with the four core components of the ICMA Green Bond Principles, which are:

(1) Use of Proceeds

The UK government intends to use the proceeds of any green gilt, Green Savings Bonds, or other specified green finance instrument to finance and/or to refinance, in whole or in part, the green expenditures that meet the environmental objective specified in the ICMA Green Bond Principles.

1) Eligible Green Expenditures

The eligible Green Expenditures consist of direct or indirect government capital expenditures, subsidies, or tax foregone and selected operational expenditures. The eligible expenditures only include government expenditures that occurred no earlier than 12 months prior to issuance, the budget year of issuance, and the two budget years after issuance. The government should distribute no less than 50% of net proceeds to current and future expenditures.

The Eligible Green Expenditures are also aligned with the environmental objectives of the ICMA Green Bond Principles, UN Sustainable Development Goals (SDGs), as well as the UK Taxonomy objectives.

2) Not Eligible Green Expenditures

The UK government recommends that Eligible Green Expenditures should not include any expenditures financed and/or refinanced through issuance of green financing instruments by other government agencies and public sector entities.

The UK Government are not supposed to finance any expenditure associated with nuclear energy expenditures under the Framework although nuclear power, solar and wind generation and carbon capture and storage will be the UK's low-carbon energy mix. The UK Government confirms that achieving net zero emissions will ensure that all energy to be supplied to final users in zero-carbon forms and be generated from low carbon sources.

3) Other Not Eligible Green Expenditures

Other no eligible green expenditures include:

- Vehicles power from fossil-fuel combustion and ethanol;

¹¹ UK Government Green Financing Framework, June 2021

- Exploitation and exploration on fossil fuel;
- Hydroelectric energy with capacity of greater than 25MW due to potential risk to natural habitats; and
- Weapons, tobacco, gaming, palm oil industries, and direct manufacture of alcoholic beverages.

The Eligible Green Expenditures financed under the Framework must be aligned with internationally recognised guidelines, particularly the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights.

(2) Project Evaluation and Selection

The UK government will conduct annual evaluation and selection of Eligible Green Expenditures with other relevant government departments. The government is supposed to renew the list of potential Eligible Green Expenditures every year.

The UK government, through HM treasury, will consult with the relevant departments so as to confirm the eligibility of each expenditure. After that, the updated eligible portfolio will be submitted to the cross-government Inter-departmental Green Bond Board (the “IDGBB”) for review. The IDGBB consists of members from HM Treasury, the UK Debt Management Office (“DMO”), NS&I and all other departments..

There will be IDGBB meetings at least twice a year. Other than project selection and evaluation, the IDGBB also provides advices on the design, implementation and maintenance of the Framework; the management of proceeds; and the associated reporting processes as well as alignment with wider strategy and objectives for HM Treasury and the DMO. HM Treasury has the final decision on all of these.

The UK government will overlook the allocation of the proceeds of all Green Financing to Eligible Green Expenditures and decide whether there are any changes annually. The UK government continues to update the Eligible Green Expenditures, in coordination with the relevant government departments in the case of cancelled, postponed or ineligible expenditures.

The relevant ministries will be in charge of monitoring the implementation of eligible projects, while the IDGBB is responsible for any potential legal controversies and recommend the updated projects for the Eligible Green Expenditures.

(3) Management of Proceeds

The proceeds of the green bond issuance must be appropriately tracked by the issuer and confirmed by the issuer in a formal internal process connected to the eligible green expenditures.

The UK government is supposed to allocate the proceeds of all Green Bonds to Eligible Green Expenditures two budget years after the relevant Green bond is issued.

When the amounts collected from Green Financing cannot be immediately and fully distributed to Eligible Green Expenditures, the UK government will use the unallocated proceeds by following its regular cash management guidelines.

The UK government might issue additional amounts of an existing green bond through any time. This will allow the government’s ability to distribute the proceeds of a further issue to any Eligible Green Expenditures under the Framework, even where these expenditures deviate from original defined Eligible Green Expenditures.

The UK government must release the information of amount of Green Financing to be issued in each financial year as part of the annual government financing plan.

(4) Reporting

Issuers must disclose the information on the use of proceeds, including allocation and expected impact, regularly to investors, during the bond term.

Reporting includes an allocation report on its Eligible Green Expenditures annually and an impact report on the environmental and socio-economic impacts at least biennially so as to ensure that investors understand the progress and positive impact being delivered. Reporting should follow the guidelines and recommendations on how to assess policies, projects and programmes, as suggested in the Green and Magenta Books.

The Magenta Book includes guidance on the design and management of evaluation processes, while the Green Book covers details in valuing environmental impacts, issues associated with valuation, and guidance on the quantification and monetisation of impacts.

1) Allocation Reporting

The UK government must release the information on the allocation of its Eligible Green Expenditures annually on the UK Government Green Financing website. The information must cover the followings:

- amount of allocation of the proceeds of Green Financing to the main Eligible Green Expenditures categories;
- detailed allocation by Eligible Green Expenditure sub-categories;
- remaining amount of unallocated proceeds with confirmation that any temporarily unallocated funds will be managed by following the HM Treasury's regular cash management guidelines;
- share of allocation of proceeds to refinancing existing Eligible Green Expenditures and financing for new and future Eligible Green Expenditures respectively; and
- any updated list of the Eligible Green Expenditures.

Allocation reporting must be released each year until complete distribution of the proceeds of all Green Financing collected for Eligible Green Expenditures under the Framework.

2) Impact Reporting

The UK government must release the information on the impact and other benefits. The information must cover the followings:

- information on the favourable environmental impacts and social co-benefits of the Eligible Green Expenditures and case studies; and
- additional disclosure because of the time-lag in the publication of specific environmental impacts.

The approach to impact reporting must be updated from time to time to be consistent with emerging reporting standards and methodologies and impact reporting must be available to investors on the UK Government Green Financing website.

4. External Review

The UK government intends to ensure its highest standards through external review of the Framework. There are three types of external reviews: Second-Party Opinion, Pre-issuance Impact Assessment Report, and Post-issuance external verification.

(1) Second-Party Opinion

The UK government has authorized Vigeo Eiris (V.E.) to offer an external review service on the Framework. The framework is acknowledged by V.E. and considered by it to be credible and influential and aligned with the ICMA Green Bond Principles (2021).

(2) Pre-issuance Impact Assessment

The UK government has authorized Carbon Trust to offer a pre-issuance impact assessment service on the consistency of the intended distribution of proceeds of Green Financing with the UK Government's climate targets and environmental policies. The Carbon Trust must confirm whether the intended allocation of proceeds is aligned with these targets and policies.

(3) Post-issuance External Verification

As mentioned above, the UK government is supposed to provide allocation reporting annually and impact reporting at least biennially. This reporting is subject to external verification by an authorised independent entity.

The verification will focus on:

- consistency of expenditures by utilising the proceeds of Green Financing with the Eligible Green Expenditures as defined in the Framework;
- allocated amount associated with the Eligible Green Expenditures financed and/or refinanced by utilising the proceeds of Green Financing;
- management of unallocated proceeds and proceeds; and
- environmental impacts and social co- benefits of Eligible Green Expenditures.

Verification will be delivered until complete allocation of the proceeds of outstanding Green Financing.

(4) Stakeholder Discussion Forum

The UK government established a Stakeholder Discussion Forum (SDF) to share specialist knowledge and expertise on technical aspects of the initiative to issue green gilts and green aspects of retail savings products, under the joint chairpersonship of HM Treasury and the Debt Management Office (DMO). SDF intends to offer:

- a range of perspectives on topics as determined by HMT/DMO that is external to government; and
- expert comments on technical matters as requested, derived from knowledge and experience gained by the individuals and organisations presented at the forum.

In summary, EU GBS and ICMA Green Bond Principles are the two most important green bond standards/principles in the world, while the ASEAN and UK green bond standards are aligned with ICMA green bond principles. The China GBS is generally complied with international practice, but it is more likely to be a guideline/regulation rather than a standard. The UK GBS is in fact a sovereign green bond.

III Disclosure Frameworks

3.1 SFDR

1. Background

The European Union's work to introduce sustainability criteria in financial markets is resulting a surge in ESG uptake both inside and outside the bloc, and rules became stricter with adopting the Sustainable Finance Disclosure Regulation (SFDR) more than one year ago.

The Sustainable Finance Disclosure Regulation (SFDR) requires mandatory ESG disclosure obligations for asset managers and other financial markets participants with significant provisions of the regulation.

The SFDR was proposed by the European Commission with the Taxonomy Regulation and the Low Carbon Benchmarks Regulation as part of a package of legislative measures arising from the European Commission's Action Plan on Sustainable Finance to improve transparency in the market for sustainable investment products, to prevent greenwashing and to increase transparency around sustainability claims made by financial market participants.¹²

2. Objectives

The SFDR intends to provide an area for financial market participants ("FMP") and financial advisers on transparency associated with sustainability risks, the consideration of adverse sustainability impacts in their investment processes and the provision of sustainability- related information with respect to financial products.

The SFDR applies to two categories of financial firms:

- Financial advisors that offer advice on insurance-based investment products (IBIPs).
- Financial market participants (FMPs) that deal with financial products and undertake portfolio management services.

The examples of firms that fall into these two categories include:

- Asset managers
- Banks
- Financial advisors
- Pension fund providers
- Insurers

The SFDR demands asset managers to provide prescript and standardised information on how ESG factors are integrated at both an entity and product level. A significant portion of the SFDR is applicable to all asset managers, whether or not they have an ESG or sustainability focus. The SFDR requires additional disclosures for financial market participants on websites, in prospectuses, and in periodic reports.

3. Sustainability Risks and Principal Adverse Impacts

In order to realise the EU SFDR's goal of improving sustainable finance by increasing transparency and creating standards, asset managers and advisers must disclose by taking into account two key factors: Sustainability Risks and Principal Adverse Impacts. Asset managers are supposed to release their policies at both the firm and product level, while advisers are supposed to illustrate how they take account these factors in their advice.

The EU SFDR clearly defines Sustainability Risks and Principal Adverse Impacts as follows:

- Sustainability Risks means environmental, social or governance circumstances, such as climate change, which could result in a material negative impact on the value of an investment.

¹² Eurosif: <https://www.eurosif.org/policies/sfdr/>

- Principal Adverse Impacts means any unfavourable effects that investment decisions or advice could produce on sustainability factors. Examples could include investing in a company with production that significantly attribute to carbon dioxide emissions, or that does not have good water, waste or land management practices.

Asset managers and advisers are required to provide specific information on Sustainability Risks and Principal Adverse Impacts

4. Disclosure Requirements

Level 1 disclosures are entity level disclosures which cover the information about the FMP's policies on the identification and prioritisation of principal adverse sustainability impacts. FMPs will also need to provide an illustration of the principal adverse sustainability impacts and of any actions taken or where relevant, planned as well as a summary of engagement policies. Level 2 disclosures are product level disclosures.

Figure 1 illustrates the SFDR disclosure requirements at Level 1 and Level 2 respectively with timing. The main provisions (Level 1) of the Disclosure Regulation was effective from 10 March 2021. The more detailed disclosure requirements relating to disclosures in the periodic reports of ESG-focused products were effective starting from 1 January 2022 (Level 2).

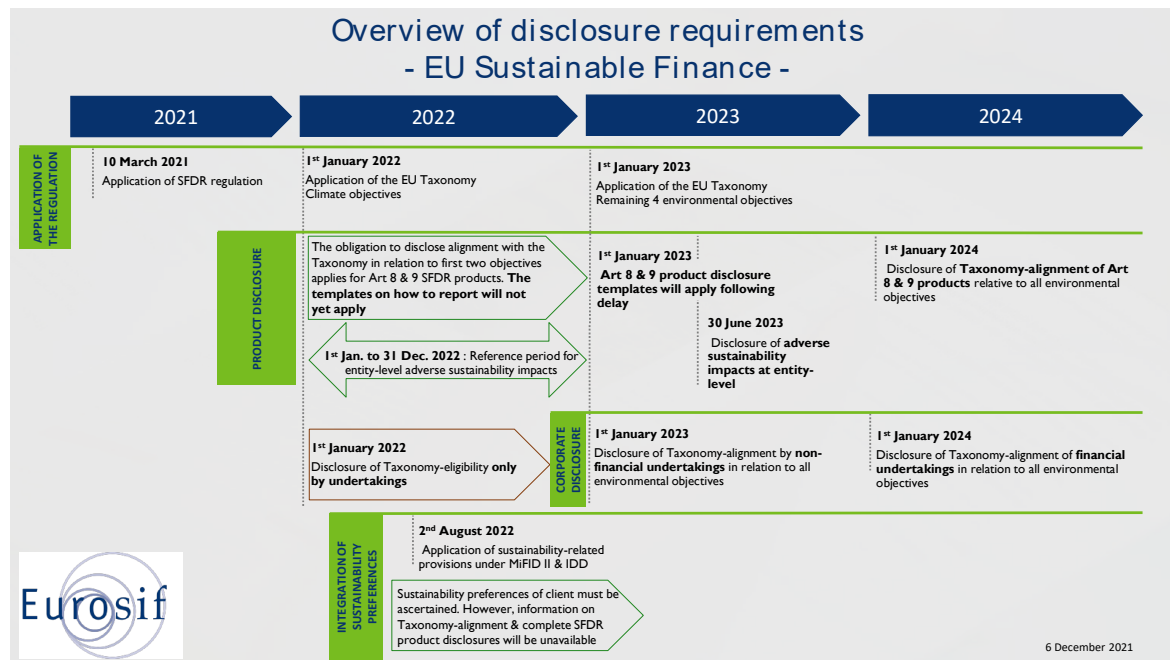


Figure 1 Disclosure Requirements of EU SFDR with Timing

Source: Eurosif

5. EU SFDR and Taxonomy Regulation

The Taxonomy Regulation is the EU Commission's principal measure to prevent "greenwashing" as it sets out criteria for determining if an activity is environmentally sustainable, including whether the activity contributes to, or does not significantly harm, one or more specified environmental objectives. The Taxonomy Regulation requires further disclosures which need to be made in addition to those set out in the SFDR. The taxonomy regulation was effective from 01 January 2022.

Since 1 July 2022, components of the EU Taxonomy have been integrated into the disclosure requirements specified by the EU SFDR. The sectors currently covered by the Taxonomy are shown below:

- Forestry
- Environmental protection and restoration activities
- Manufacturing
- Energy
- Water supply, sewerage, waste management and remediation
- Transport
- Construction and real estate
- Information and communication
- Professional, scientific and technical activities
- Financial and insurance activities
- Education
- Human health and social work activities
- Arts, entertainment and recreation

At the center of SFDR, three articles determine respective reporting requirements:

- Article 6: The regulatory baseline. It is applicable to all financial market participants and advisors, regardless of product strategy. Asset managers and advisers are required to inform users and clients whether and how they integrate sustainability risks into their products and advice (a practice commonly known in the market as 'ESG integration').
- Article 8: Products that intend to promote environmental (E) or social (S) characteristics.
- Article 9: Products that intend to contribute to the achievement of an E or S objective while doing no significant harm to another E or S objective.

3.2 TCFD

1. Background

One of the important functions of financial markets is to price assets and related risks so as to support informed, efficient capital-allocation decisions. Accurate and timely disclosure of current and past operating and financial results is fundamental to this function. Without the right information, investors and others may incorrectly price or value assets and risks, leading to a misallocation of capital.

The Financial Stability Board (FSB) established the TCFD to develop recommendations on the types of information that companies should disclose to support investors, lenders, and insurance underwriters in adequately assessing and pricing a specific set of assets and risks associated with climate change.

2. Objective

TCFD is a type of climate-related financial disclosures that intends to strengthen and protect global financial markets from systemic risks such as climate change. The overall objective of the TCFD is to develop a guidance to all market participants on the disclosure of information on the financial implications of climate-related risks and opportunities in order to ensure rational business and investment decisions.

To protect the systemic risk, market participants including asset owners, fund managers and banks, must manage increasingly complex and urgent climate-related risks and opportunities. The TCFD suggests use of scenario analysis to evaluate climate-related risks and opportunities and requests firms to release the extent to which adequate governance, strategy, risk management, and metrics and targets are in place to address the climate issues.

The climate-related financial disclosure recommendations published by TCFD in 2017 intended to help companies provide better information to support informed capital allocation. The disclosure

recommendations cover four thematic areas that represent core elements of how companies operate: governance, strategy, risk management, and metrics and targets. The four recommendations are correlated and accomplished by 11 recommended disclosures that establish the framework with information that should support investors and others understand how the organizations think about and assess climate-related risks and opportunities.

3. Disclosure Requirements

One of the most significant risks that organizations face today is associated with climate change. While it is widely recognized that continued emission of greenhouse gases will result in further warming of the planet, which could lead to damaging economic and social consequences. However, the exact timing and severity of the impacts are difficult to estimate. The large-scale and long-term nature of the impacts makes it uniquely challenging, especially in the context of economic decision making.

Under TCFD, the disclosure requirements include¹³:

(1) Governance: The organization's governance around climate-related risks and opportunities. The recommended disclosures include:

- Describe the board's oversight of climate-related risks and opportunities.
- Describe management's role in assessing and managing climate-related risks and opportunities.

(2) Strategy: The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning. The recommended disclosures include:

- Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.
- Describe the impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning.
- Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

(3) Risk Management: The processes used by the organization to identify, assess, and manage climate-related risks. The recommended disclosures include:

- Describe the organization's processes for identifying and assessing climate-related risks.
- Describe the organization's processes for managing climate-related risks.
- Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

(4) Metrics and Targets: The metrics and targets used to assess and manage relevant climate-related risks and opportunities Climate-Related Scenarios. Recommended disclosures include:

- Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
- Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.

¹³ Final Report, TCFD, June 15 2017

- Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

3.3 TNFD

1. Background

Nature loss poses both risks and opportunities for business at present and in the future. More than half of the world's economic output relies on nature.

At present, financial institutions and firms do not have the information that they need to assess how nature has impacts on the organisation's immediate financial performance, or the longer-term financial risks that the organization faces. Better information will allow financial institutions and firms to incorporate nature-related risks and opportunities into their strategic planning, risk management and asset allocation decisions.

2. Objective

The overall objective of TNFD is to establish and release a risk management and disclosure framework for organisations to disclose and manage the evolving nature-related risks, with the final objective of supporting a move in global financial flows from nature-negative outcomes to nature-positive outcomes.¹⁴

A market based approach with input from leading science and data bodies, suggests that the TNFD framework is applicable for both businesses and financial institutions. In fact, the TNFD is not developing a new framework, but creating an integrated framework that is established based on existing standards, metrics and data.

The TNFD's follows seven principles: market usability, science-based, nature-related risks, purpose-driven, integrated & adaptive, climate-nature nexus and globally inclusive.

3. TNFD Framework

By using an open innovation approach, the TNFD releases several beta versions of the frameworks for feedback and pilot testing with various stakeholders from a wide range of knowledge and implementation partners.

Following the release of beta v0.1 in March 2022 and beta v0.2 in June 2022, the Taskforce plans to release v0.3 and v0.4 of the beta frameworks in November 2022 and February 2023 respectively, and deliver final recommendations in September 2023.

4. Disclosure Requirements

In order to meet the market participants' demand for a consistent and integrated approach to sustainability reporting, the TNFD's draft disclosure recommendations were established based on those already proposed by the TCFD, i.e. four pillars of disclosure: governance, strategy, risk management and metrics and targets. By aligning the TNFD's recommended disclosures with those of the TCFD, the TNFD attempts to promote an integrated disclosure.¹⁵

The disclosures should be based on:

- assessment of nature-related dependencies and nature impacts;
- consideration of location;

¹⁴ TNFD, <https://framework.tnfd.global/the-leap-nature-risk-assessment-process/>

¹⁵ The TNFD Nature-related Risk & Opportunity Management and Disclosure Framework, March 2022

- consideration of capabilities for nature-related risk and opportunity assessment and management; and
- a statement of the scope of disclosures and what will be covered in future disclosures.

Under TNFD, the disclosure requirements include:

(1) Governance: Disclose the organisation's governance around nature-related risks & opportunities. The recommended disclosures include:

- Describe the board's oversight of nature-related risks and opportunities.
- Describe management's role in assessing and managing nature-related risks and opportunities.

(2) Strategy: Disclose the actual and potential impacts of nature-related risks and opportunities on the organisation's businesses, strategy and financial planning where such information is material. The recommended disclosures include:

- Describe the nature-related risks and opportunities the organisation has identified over the short, medium, and long term.
- Describe the impact of nature-related risks and opportunities on the organisation's businesses, strategy, and financial planning.
- Describe the resilience of the organisation's strategy, taking into consideration different scenarios.
- Describe the organisation's interactions with low integrity ecosystems, high importance ecosystems or areas of water stress.

(3) Risk Management: Disclose how the organisation identifies, assesses and manages nature-related risks. The recommended disclosures include:

- Describe the organisation's processes for identifying and assessing nature-related risk.
- Describe the organisation's processes for managing nature-related risks.
- Describe how processes for identifying, assessing, and managing nature-related risks are integrated into the organisation's overall risk management.

(4) Metrics & Targets: Disclose the metrics and targets used to assess and manage relevant nature-related risks and opportunities where such information is material. The recommended disclosures include:

- Disclose the metrics used by the organisation to assess and manage nature-related risks and opportunities in line with its strategy and risk management process.
- [Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG emissions, and the related risks.]* *Adaptation under consideration by TNFD
- Describe the targets used by the organisation to manage nature-related risks and opportunities and performance against targets.

IV Best Practice Suitable and Recommendations for Ukraine

4.1 Green Bond Standards

1. Analysis of EU GBS and Other Countries' GBS

This section assesses to what extent the EU and other countries' Standards are applicable to Ukraine how it can be modified for better uses.

(1) EU GBS

The EU Green Bond Standard, aimed at increasing transparency and accountability, represents one of the biggest developments in the sustainable green financing for last decade. It is one of the most important GBSs in the world.

The advantages of EU GBS include:

- a consistent standard for the public and private sector to use green bonds to raise funds through the capital markets to finance environmentally ambitious investment;
- a voluntary green bond standard with the EU GBS being the benchmark for the most "high-quality" green bonds in the European bond market;
- reduction of uncertainty about what constitutes green investment by linking it to the EU taxonomy;
- standardising costly and complicated verification and reporting procedures; and
- availability to any issuer of green bonds, including issuers located outside of the EU.

The disadvantages of EU GBS include:

- lack of flexibility due to 100% alignment of the bond's Use-of-Proceeds with the requirements of the European Taxonomy;
- no mandatory verification of the Impact Reporting;
- confused and fatigued by issuers because of new overlay of the EU action plan and a new EU Green Bond Standard;
- lack of obvious pricing benefit for issuers due to being daunted by the new process, new external parties involved, changes to documentation platform, the related expense; and
- a free platform to issue bonds as 'green bonds' without respecting any of the regulatory criteria due to its voluntary nature.

(2) ICMA GB Principles

The ICMA GB principles is the dominant market standard, and is considered the de facto global standard.

The advantages of ICMA Green Bond Principles include:

- a guidance to issuers on the key components needed to issue a green bond;
- explicitly defining the eligible categories under which projects can be labelled green;
- a clear process for project selection and allocation of funds;
- providing a list of eligible green projects categories, while allowing issuers to look to international/regional and national taxonomies for project eligibility guidance; and
- easy to recommend a third-party external review;

The disadvantages of ICMA Green Bond Principles include:

- not outlining what use of proceeds will be considered green and leaving it to the issuer, its advisers, and the second opinion reviewer;
- inadequate green contractual protection for investors; and
- difficult to confirm level of greenness without a single global standard or recognised legal definition, and the market criteria based on voluntary compliance.

(3) ASEAN GBS

The ASEAN Green Bonds Standards is a big step forward towards more green investments and financing in the region.

The advantages of ASEAN GBS include:

- facilitating ASEAN capital markets to support sustainable growth and meeting investor interest for green investments for the region;
- more specific guidance on how the GBP is to be applied across ASEAN in order for green bonds to be labelled as ASEAN Green Bonds;
- playing a vital role to promote standardization among ASEAN countries in issuing the green bond; and
- flexibility to the issuer to include any eligible projects that fulfil the standard's requirement from time-to-time into their investment portfolio.

The disadvantages of ASEAN GBS include:

- applicable mainly to ASEAN countries, but not to the countries outside ASEAN;
- lack in fulfilling the governance issue in ESG's dimension; and
- absence to explain in term of exit strategy and cost incurred to those parties that unable to follow the standard.

(4) China GBS

Catalogue 2021, like its previous versions, has served as a reference basis for green bond approval and registration, third-party green bond evaluation, green bond rating and related information disclosure.

The advantages of China GBS include:

- a green bond reference basis with strict requirements rather than a green bond standard in strict term;
- a foundation for China's green bond market development;
- aligning with international GBS and China's official environmental targets; and
- greater flexibility since China's standard allows issuers to use up to 50% of proceeds to repay bank loans or to invest in general working capital.

The disadvantages of China GBS include:

- lack of a scientific framework to ensure that the project- level criteria for green bonds are in line with China's national environmental targets, including emission reduction targets;
- lack of independent second-party reviewers; and
- without endorsement of third-party certification.

(5) UK GBS

The UK's Green Financing Framework presents government strategy to finance expenditures by issuing green gilts and the retail Green Savings Bonds that will be crucial in dealing with climate change and other environmental challenges.

The advantages of UK GBS include:

- covering not only the green gilt but also the Green Savings Bond as well as any future green finance instrument;
- aligning the use of proceeds from its Eligible Green Expenditures to target nine Sustainable Development Goals, reflecting the wider scope it intends to cover in its green financing;
- containing social impact indicators such as number of jobs created, number of households benefiting from an improvement, or number of small and medium sized enterprises that have received specific support;

- a clear list of activities that should not be on the receiving end of the UK's Green Financing such as vehicles powered through fossil fuel combustion and ethanol, fossil fuel exploitation and exploration, etc.; and
- excluding nuclear energy-related expenditures although nuclear power is, and will continue to be, a key part of the UK's low-carbon energy mix".

The disadvantages of UK GBS include:

- only covering sovereign green bonds while excluding corporate bonds at current stage despite many UK companies having good green and sustainability initiatives;
- authorised external reviewers for Second-Party Opinion and Pre-issuance Impact Assessment Report; and
- risk of "greenwashing".

2. Recommended GBS for Ukraine

It is recommended that Ukraine should fully adopt the EU GBS in the long term and Amended EU GBS in the short term.

(1) Ukraine Green Bond Standard in Long Term

Green bonds play an increasingly important role in financing the green assets so as to achieve the low-carbon transition. The EU Green Bond Standard, aiming at increasing transparency and accountability, has become one of the biggest developments in the sustainable debt capital markets for last decade. The European Green Bond Standard proposed by the Commission is developed by following the best market practice and to be compatible with existing market standards for green bonds. Further, there are no major differences between the EU GBS and the current market standards of the ICMA Green Bond Principles. Finally, Ukraine will be a EU member in the future.

Therefore, it is recommended that Ukraine should fully adopt EU GBS in the long run. The major components for Ukraine GBS are defined below¹⁶:

1. Alignment with EU-taxonomy: proceeds from EU Green Bonds should be used for finance or refinance projects/expenditures that (a) attribute significantly to at least one of the six taxonomy Environmental Objectives; (b) do not substantially harm any of the other objectives; and (c) meet the minimum social safeguards; and (d) where technical screening criteria are available, financed projects/expenditures shall meet these criteria.
2. Release of a Green Bond Framework, which ensures the voluntary alignment of green bonds issued with the EU GBS, illustrates how the issuer's strategy is consistent with the environmental objectives, and discloses details on all key aspects of the proposed use-of-proceeds, proceeds and reports the green bonds.
3. Mandatorily release allocation report and on impact report.
4. Mandatorily verify the Green Bond Framework and final allocation report through an external reviewer.

Government of Ukraine also needs to develop its own taxonomy by alignment with EU-taxonomy.

(2) Ukraine Green Bond Standard in Short Term

As Ukraine has been granted EU candidate status, EU standard is still the most practical standard for Ukraine, subjective to certain amendments during the transition period. The EU Standard is a good starting point for the decision makers in Ukraine to adopt an effective and reliable standard.

¹⁶ Report on EU Green Bond Standard, OVERVIEW, 2019

During the transition period to full membership of EU, the proposed green bond standard for Ukraine is amended as below:

1) Mandatory Label

The EU standard allows a voluntary standard for issuers to use the label 'European green bond'. Such a voluntary standard would add a public value to the existing market of voluntary private standards. In practice, there are several alternatives on the spectrum of voluntariness, ranging from voluntary to mandatory. During the transit period, Ukraine should consider a mandatory standard for all debt instruments labelled 'green bond' or 'environmentally sustainable bonds' most appropriate. The compulsory substantial requirements for green bonds, as suggested in China green bond regulation, will effectively prevent greenwashing as long as the requirements are strict.

2) Combination with Social and Sustainable Bond Standard

During the transition period, Government of Ukraine would face the challenge of social and economic development in addition to green development. One amendment is that Ukraine should consider to include social and sustainable bonds, or bonds financing social objectives or a combination of social and environmental objectives in its GBS during this period. This recommendation is derived from the practice of ASEAN green bond standard and the UK green financing framework. This would create a combined green and sustainable bond standard, which would be used to guide issuance and management of both green and sustainable bonds in Ukraine.

3) 100% Use of Green Bond Proceeds

One of the crucial issues of the EU GBS is the requirement to allocate 100% of the proceeds of the green bonds to finance taxonomy-aligned projects/expenditures during the term of the bond. During the transition period, Ukraine might not have eligible green projects available to be financed. The GBS should be supportive of this and provide for flexibility in situation where issuers can allocate minimum 80% (vs 50% in China) of the green bond proceeds. Thus, amendments should be proposed to reduce the 100 per cent of the proceed of green bonds to meet the requirements for taxonomy alignment plans in Ukraine during the transit period.

4) Taxonomy Alignment: Technical Screening Criteria (TSC)

One issue with taxonomy alignment is that the EU GBS does not have flexibility in circumstances where the technical screening criteria may not be readily applicable to Ukraine due to the innovative nature, the complexity, the location and/or other legitimate factors of the projects. Further, the technical screening criteria may not be fully developed yet or there is no technical screening criteria. Under these circumstances, the Ukraine GBS should provide flexibility with an approved verifier confirming that the green projects will attribute significantly to at least one of six environmental objectives in the Taxonomy Regulation, while not substantially harming any of the other environmental objectives, and being consistent with minimum safeguards.

5) Taxonomy Alignment: Eligible Green Projects

Ukraine's energy mix is relatively diversified, with no fuel representing more than 30% of the energy mix. In 2018, the share of coal (the country's primary fuel) dropped to 30%, followed closely by natural gas (28%) and nuclear (24%). Climate Delegated Act, which conditionally includes nuclear power and natural gas among the economic activities that attribute substantially to climate change mitigation. Although this inclusion is highly controversial and currently under the scrutiny of the co-legislator, Government of Ukraine must allow the financing of gas and nuclear power generation projects in transition towards full taxonomy alignment as Ukraine needs to recover its economy from the war.

6) Separated/Integrated Bond Standard

As presented in last section, the UK government focuses only on sovereign green bond in the UK Government Green Financing Framework (GBS). An integrated standard for private and sovereign standard is the best alternative to ensure a same principle for both types of issuers that compete on the same market and for the same investors. However, Ukraine may establish separate standards for private and sovereign bonds respectively during transit period. The advantage for separate GBS is to encourage private issuers to be involved in the green bond market. In general, for all requirements defined, the sovereign GBS must be more stringent than private GBS.

7) Simplified Review Procedures

Under EU Green Bond Standard, the external review is undertaken at three levels: (i) private external reviewers that evaluate a bond's substantive compliance with the Taxonomy Regulation. (ii) National competent authorities (NCAs) that assess the issuers' compliance with the disclosure obligations. (iii) The European Securities and Markets Authority (ESMA) that evaluates the private external reviewers. The procedures are complicated and will result in the risk of supervisory diffusion. The review procedures must be simplified by giving the Ukraine NCAs the powers to supervise issuers regarding their substantive and disclosure compliance with the EU GBS.

4.2 Disclosure Frameworks

1. Analysis of Disclosure Frameworks

(1) SFDR

SFDR is one of three regulatory pillars in the EU's sustainable finance action plan, which intends to redirect capital towards more sustainable business and has been a driving force in reshaping financial market behavior across the world.

The advantages of SFDR include:

- a great opportunity for investors to demonstrate how serious they are about sustainability and ESG;
- a massive step change for asset managers and advisors, including those inside and outside the bloc;
- improving disclosures on the principal adverse impacts of investment decisions on the sustainability features of financial products; and
- preventing "greenwashing" and achieving comparability between end products, while placing sustainability risks and factors at the centre of their operations and investment approach.

The disadvantages of SFDR include:

- being also impacted by many other regulations (including national regulations) that will soon be upgraded; and
- time-consuming and costly for ensuring compliance with SFDR for asset managers and advisors.

(2) TCFD

TCFD intends to strengthen and protect global financial markets from the perspective of systemic risks such as climate change. In practice, the UK will be the first economy in the world to make TCFD aligned disclosures fully mandatory across the country by 2025, rather than just the 'comply or explain' approach.

The advantages of TCFD include:

- a guidance to all market participants on the disclosure of information on the financial implications of climate-related risks and opportunities so that they can be integrated into business and investment decisions;
- promoting more informed investment, credit, and insurance underwriting decisions;
- helping develop a business case to increase capital expenditure on carbon management projects; and
- strengthening the commitment to managing climate-related issues and align strategy with the goal of the Paris Agreement to keep global temperature increases to well below 2 degrees Celsius.

The disadvantages of TCFD include:

- focusing mainly on financial implications of climate-related risks.

(3) TNFD

The TNFD framework intends to provide guidance on nature-related risks and opportunities relevant to a wide range of market participants.

The advantages of TNFD include:

- a practical and consistent risk management and disclosure framework that enables corporates and financial institutions to assess, manage and report on their dependencies and impacts on nature;
- processing consistency across nature-related disclosure initiatives, and fostering a culture of collaboration and iterative improvement across finance and business communities;
- aligning its recommended disclosures closely to those of the TCFD, to facilitate and encourage a move toward integrated disclosures; and
- Strengthen the business case for addressing nature-related risks and opportunities.

The disadvantages of TNFD include:

- Concentrate mainly on the nature-related risks and opportunities.

2. Recommended Disclosure Framework for Ukraine

SFDR is an EU disclosure framework that presents regulations for financial market participants and financial advisers to report on how they deal with sustainability risks. The disclosure must be made at both entity level and product level.

In particular, the EU Taxonomy regulation represents a common European classification system for environmentally sustainable activities.

To help the Ukraine meet its net zero target and other environmental objectives, the Ukraine government should release the introduction of more robust sustainability disclosure standards so that investors and businesses can better understand the material financial impacts of their exposure to sustainability risks more accurately, and support the greening of the Ukraine economy.

TCFD and TNFD are the two most popular disclosure frameworks in the world. TNFD intends to align its recommended disclosures closely to those of the TCFD, to facilitate and encourage a move toward integrated disclosures.

Therefore, it is recommended that the Ukraine should become the country in the world to make SFDR aligned disclosures fully mandatory across the economy in the long term and may adopt TFCF or TNED as a voluntary disclosure framework in the short term.

Annex 1.1 TOR

Background

Since 1993 UNDP has been assisting the government of Ukraine in developing solutions for the transition from a planned to a market economy and for establishing democratic systems. UNDP's engagement and partnership with national and sub-national institutions has been a catalyst for laws and policies as well as strengthening institutions in preparing the country for deeper global integration.

Green finance has become a key area of UNDP support to the Government of Ukraine. UNDP supports mobilization of public and private green finance through implementation of innovative financial instruments (e.g. green bonds, sustainability bonds, etc.). In addition, UNDP provides assistance to different international and regional initiatives aimed at developing green bonds market in developed and developing countries (e.g. Climate Bonds Initiative, CBI).

According to the Action Plan for the implementation of the Energy Sector Reform (2018) of the Energy Strategy of Ukraine up to 2035, the State Agency on Energy Efficiency and Energy Savings of Ukraine (SAEE) submitted to the Government of Ukraine a Concept for the introduction of the green bonds market and an Action Plan for its implementation. In this regard SAEE has approached relevant donor-funded programmes/projects for assistance.

In January 2019 the Committee on Fuel and Energy (sub-committee on Sustainable Development, Strategy and Investments) of the Parliament of Ukraine, to which the UNDP project Sustainable Energy and Environment Secretariat to Support the Parliament of Ukraine in Sustainable Energy and Environment Area ('Green Caucus' Secretariat) is providing assistance, also requested to develop a Green Bonds concept applicable for Ukraine.

Adoption of road maps for the introduction of the green bonds market is a common practice worldwide. Governments and central banks use them as a benchmark when developing the strategies and approaches to building a green bond market and attracting green finance.

In addition, Ukraine needs to introduce guidelines, as well as procedures for issuance of sovereign and municipal green bonds.

UNDP will hire an International Consultant in Green Bond Standards whose main assignments will include the following: (i) provide guidance for development of the concept and the action plan for the introducing of the green bonds system in Ukraine; (ii) conduct an assessment of compliance of the concept and the action plan for the introducing of the green bonds system in Ukraine with international practices; and (iii) estimate the volumes of the green bonds market in Ukraine. It is planned that UNDP will assist SAEE in development of the mentioned Concept and Action Plan through the engagement of local financial and legal consultants. Consequently, the UNDP seeks the services of a qualified international consultant to provide required expertise towards meeting the above-mentioned objectives.

Duties and Responsibilities

2. Objectives of the assignment

The main objective of the assignment is to support establishment of the green bonds market in Ukraine through elaboration of the recommendations on the Green Bonds Standard, revision of the Concept and the Action Plan for establishing the green bonds market in Ukraine, estimation of the volumes of the green bond market in Ukraine. The international consultant will work closely with the Energy and Environment Team Leader, Project Manager of the Supporting Green Recovery in Ukraine project.

3. Scope of services

The key role of the international consultant will include support for developing an enhanced strategic vision, strengthened project oversight:

- Analysis of green bond standards/guidance developed in EU and other countries; identification of the best practices suitable for Ukraine including
 - Description of main relevant standards by sector and timeline for expansion to new sectors
 - Analysis of TCFD TNFD and other relevant disclosure frameworks
- Development of recommendations for the necessary legal and regulatory changes to introduce Green Bonds Standard in Ukraine.
 - Development of proposals on regulatory and legal guidelines and procedures for green bonds market, including for the sovereign and municipal green bonds (on the procedure for evaluating and selecting green projects, mechanisms for financing and re-financing green projects, procedures for monitoring the use and management of funds, control procedures and reporting standards).
 - Development of proposals for the regulatory incentives for the green bond market.
- Legal and regulatory review of the Green Bond Market Concept, prepared by the Working Group on Green Finance
- Legal and regulatory review of the Action Plan for the creation of the green bonds market (prepared by the Working Group on Green Finance)
- Estimations of the potential volumes of the green bonds market in Ukraine

4. Measurable outputs of the work assignment/deliverables

Deliverables <i>[list them as referred to in the TOR]</i>	Percentage of Total Price (Weight for payment)	Due Date
Deliverable 1: Written analysis of green bond standards/guidance developed in EU and other countries, identification of the best practices suitable for Ukraine	20%	Two weeks after the start of assignment
Deliverable 2: Development of the set of recommendations for the necessary legal and regulatory changes to introduce Green Bonds Standard in Ukraine in a form of written report.	20%	Five weeks after the start of assignment
Deliverable 3: Legal and regulatory review of the 20% Green Bond Market Concept, prepared by the Working Group on Green Finance in a form of analysis papers.	20%	Eight weeks after the start of assignment
Deliverable 4: Legal and regulatory review of the 20% Action Plan for the creation of the green bonds market (prepared by the Working Group on Green Finance)	20%	Eleven weeks after the start of assignment
Deliverable 5: Estimations of the potential volumes of the green bonds market in Ukraine. Two presentations on study findings to the stakeholders in Ukraine.	20%	Fifteen weeks after the start of assignment
Total	100%	

5. Management arrangements

The senior international consultant will report to the Energy and Environment Team Leader and Deputy Resident Representative of the UNDP Ukraine Office, who will be provided with written monthly reports on the progress of activities and the key challenges and opportunities.

The international consultant will be responsible for the supervision and provision of guidance to the project managers of all (current and future) UNDP Ukraine projects under the energy and environment portfolio in Ukraine. The international consultant will work closely with the Energy and Environment Team Leader.

6. Monitoring requirements / Terms of payment

The international consultant will be responsible for strategic guidance towards institutional and legislative changes needed in Ukraine to introduce Green Bond Standard, as well as relative analytical work to support the change. The international consultant will work closely with the Energy and Environment Team Leader, Supporting Green Recovery Project Manager and selected local consultants.

UNDP will be the final authority to control the quality and evaluate the work. The satisfactory completion of each of the deliverables shall be subject to the endorsement of the Team Leader. Each deliverable will be delivered in a draft for comments and feedback before finalization. No reports or documents should be published or distributed to third parties without the approval of UNDP.

All reports and results are to be submitted to the UNDP in electronic form (*.docx, *.xlsx, *.pptx, and *.pdf or other formats accepted by UNDP). The language of the materials and reports is English.

**Part 2 Proposals on Regulatory and Legal Guidelines
and Procedures for Ukraine Green Bonds Market**

(Deliverable 2)

Executive Summary

This report provides a description of background, objective and scope. Green bonds play an increasingly important role in financing green assets through capital market. Currently, there is a uniform green bond standard within the EU. In order to avoid market fragmentation and to make clear the benefits of using the EU GBS, Government of Ukraine must set up provisions to ease the comparability to other sustainable bond issuances. It must establish additional requirements to strengthen the independence of external reviewer and avoid possible conflicts of interest. It must develop measures to stimulate a deep and liquid market for EU GBS. In general, Government of Ukraine must seek to better regulate the entire green bond market, rather than only establishing the European Green Bond label, and reduce so-called “green washing”.

This report provides an overview of the current GB legal/regulatory requirements and basis for this proposed Regulation. The objective of this report is to develop the set of recommendations for the necessary legal and regulatory changes to introduce Green Bonds Standard in Ukraine in a form of written report. As defined in the TOR, the scope of this report includes: (i) development of proposals on regulatory and legal guidelines and procedures (Regulation) for green bonds market; and (ii) development of proposals for the regulatory incentives for the green bond market. The Regulation presented in this report is based on the financial and economic practice in the country and the laws and regulations in EU and Ukraine.

This report finally establishes a set of regulatory and legal guidelines and procedures (Regulation) for Ukraine green bond market from the perspectives of: (i) mechanisms for financing and re-financing green projects, (ii) evaluating and selecting green projects, (iii) procedures for monitoring the use and management of funds, (iv) reporting standards, (v) control procedures, (vi) supervision by the National Securities and Stock Market Commission (NSSMC), and (vii) incentives for GB Issuance.

I Introduction

1.1 Background

Green bonds play an increasingly important role in financing green assets through capital market. Currently, there is an uniform green bond standard within the EU. On 6 July 2021, the European Commission (EC) proposed a voluntary European Green Bond Standard (EU GBS) available to all issuers (private and sovereigns) to help financing sustainable investments.

Based on the EU GBS, issuers of green bonds must show that the funding green projects are aligned with the EU Taxonomy. Investors who purchase the bonds can more easily see that their investments are sustainable. The EU GBS is open to any issuers of green bonds, including issuers located outside of the EU.

The EU GBS has four key components:

(1) Alignment with EU-taxonomy: proceeds from EU Green Bonds must be used for finance or refinance projects/expenditures that (a) attribute significantly to at least one of the six taxonomy environmental objectives; (b) do not significantly harm any of the other objectives; (c) meet the minimum social safeguards; and (d) where technical screening criteria are available, financed projects/expenditures must meet these criteria.

(2) Release of a Green Bond Framework, which ensures the voluntary alignment of green bonds issued with the EU GBS, illustrates how the issuer's strategy is consistent with the environmental objectives, and discloses details on all key aspects of the proposed use of proceeds.

(3) Mandatorily release annual allocation report and one impact report.

(4) Mandatorily verify the Green Bond Framework and final allocation report by an external reviewer.

As suggested in the first deliverable, Ukraine shall follow the EU GBS in the long term.¹⁷ In order to avoid market fragmentation and to make clear the benefits of using the EU GBS, Government of Ukraine must set up provisions to ease the comparability to other sustainable bond issuances. It must establish additional requirements to strengthen the independence of external reviewer and avoid possible conflicts of interest. It must develop measures to stimulate a deep and liquid market for EU GBS.

In general, Government of Ukraine must seek to better regulate the entire green bond market, rather than only establishing the European Green Bond label, and reduce so-called "green washing".

1.2 Objective and Scope

The objective of this report is to develop the set of recommendations for the necessary legal and regulatory changes to introduce Green Bonds Standard in Ukraine in a form of written report¹⁸.

¹⁷ Green Bond Standards/Guidance in EU and Other Countries and Best Practices Suitable for Ukraine, Consultant Report, June 2022.

¹⁸ TOR, Supporting Green Recovery in Ukraine

As defined in the TOR, the scope of this report includes¹⁹:

Development of recommendations for the necessary legal and regulatory changes to introduce Green Bonds Standard in Ukraine, including

- Development of proposals on regulatory and legal guidelines and procedures (Regulation) for green bonds market, including for the sovereign and municipal green bonds (on the procedure for evaluating and selecting green projects, mechanisms for financing and re-financing green projects, procedures for monitoring the use and management of funds, control procedures and reporting standards).
- Development of proposals for the regulatory incentives for the green bond market.

The TOR stipulates that the consultant should submit a series of deliverables within the framework of the mission. The completion of this report marks the second of 5 reporting requirements set out in the TOR:

- Deliverable 1: Written analysis of green bond standards/guidance developed in EU and other countries; identification of the best practices suitable for Ukraine
- Deliverable 2: Development of the set of recommendations for the necessary legal and regulatory changes to introduce Green Bonds Standard in Ukraine in a form of written report
- Deliverable 3: Legal and regulatory review of the Green Bond Market Concept, prepared by the Working Group on Green Finance in a form of analysis papers.
- Deliverable 4: Legal and regulatory review of the Action Plan for the creation of the green bonds market (prepared by the Working Group on Green Finance).
- Deliverable 5: Estimations of the potential volumes of the green bonds market in Ukraine. Two presentations on study findings to the stakeholders in Ukraine.

1.3 Structure of This Report

This report is organized as follows. Chapter one provides a description of background, objective and scope. Chapter 2 provides an overview of the current GB legal/regulatory requirements in Ukraine and basis for this proposed regulation. Chapter 3 proposes a set of regulatory and legal guidelines and procedures (Regulation) for Ukraine green bond market.

II Current GB Legal/Regulatory Requirements in Ukraine

2.1 Review of Current GB Legal/Regulatory Requirements

On 16 August 2020, the Law of Ukraine "On Amendments to Certain Legislative Acts of Ukraine Concerning the Simplification of Attraction of Investments and the Introduction of New Financial Instruments", No. 738-IX dated 19 June 2020 (the "Law"), came into force. It provides a general guideline for the introduction of green bonds in Ukraine and establishes rules for these market participants. For the first time, the green bond is presented as a separate class of instruments and the rules of the game are developed for participants in this market.

In particular, Article 18 of the Law defines:

¹⁹ TOR, Supporting Green Recovery in Ukraine

- the green bonds and environmental projects (including the specific areas to which funds raised from the issue of such bonds can be allocated);
- the circle of issuers of green bonds (including a legal regime for those who implement and finance the environmental projects); and
- the principles of information disclosure by issuers, reporting requirements and the use of proceeds, which will be applicable to finance and / or refinance the costs of environmental projects.

On 14 August 2020, the State Agency on Energy Efficiency and Energy Saving of Ukraine ("SAEE") formulated a draft Concept for the implementation of a green bond market in Ukraine ("Draft Concept"). SAEE asked municipalities to prepare pilot projects for their issues.

This Draft Concept established the goals, main directions and tasks for the introduction of a green bond market in Ukraine, which was crucial for financing environmental projects, developing the domestic capital market and promoting the Ukrainian economy as a whole.

The draft Concept intended to implement the provisions of the Association Agreement between Ukraine and the European Union, the European Atomic Energy Community and their member states.

The draft Concept covered the following:

- Problems to be solved;
- Goals and terms of implementation of the draft Concept;
- Ways of solving the problem;
- Expected results; and
- The volume of financial, material and technical, labor resources.

Further, the Draft Concept included an Action Plan for the implementation of the green bond market in Ukraine for 2020-2022.

SAEE indicated that it had worked on the development of secondary legislation, particularly guidelines for the selection and evaluation of projects based on the environmental criteria, which would be financed from the state and local budgets.

However, the laws and regulations associated with introduction of green bond have not systematically developed in Ukraine up to date. Thus, it is of great importance to develop a set of recommendations for the necessary legal and regulatory changes to introduce Green Bonds Standard in Ukraine.

Since the European Commission published its proposal for a Regulation on European green bonds ("EU GBS") in July 2021 as part of its agenda on sustainable finance to meet the goals of the Paris Agreement and the European Green Deal, the draft EU GBS has been widely discussed and commented – most recently by the Report of the Committee on Economic and Monetary Affairs of the European Parliament (A9-0156/2022) ("ECON Report"), published at end of May 2022.

While EU voluntary standard provided a basis for the development of the green bond market, the European Commission intended to provide issuers and investors with a more detailed and unified regulatory framework based on Regulation with the introduction of a European green bond standard which will overcome the barriers that issuers and investors currently face with the present market standards and facilitate the further development of the green bond market.

As proposed in the consultant's report on Green Bond Standards/Guidance in EU and Other Countries and Best Practices Suitable for Ukraine,²⁰ Ukraine will follow EU green bond standard in

²⁰ Green Bond Standards/Guidance in EU and Other Countries and Best Practices Suitable for Ukraine, Consultant Report, June 2022.

the long run. The set of the necessary legal and regulatory changes to introduce Green Bonds Standard in Ukraine in this report is generally aligned with the EU GBS.

Further, as the legal and regulatory framework on green bond has not been established from a systematic perspective, the set of recommendations for the necessary legal and regulatory changes to introduce Green Bonds Standard actually means new development of regulatory and legal guidelines and procedures for green bond market in Ukraine.

2.2 Basis of this Regulation

This Regulation is established based on the financial and economic practice in the country and the laws and regulations below:

- The Green Bonds Regulation Proposal, which was released by the European Commission in July 2021 as part of a strategy for funding the transition to a sustainable economy;
- The European Climate Law (Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021), which establishes a framework for gradual reduction of greenhouse gas emissions by sources and setting out a binding objective of climate neutrality in the EU by 2050;
- The European Climate Pact, an EU-wide initiative which invites all people to become part of the solution and share ideas and best practices;
- The 2030 Climate Target Plan, under which the Commission proposes to reduce greenhouse gas emissions to at least 55% by 2030 and to achieve the EU climate-neutrality by 2050;
- The EU Adaptation Strategy, which establishes the strategies for the EU's adaptation to the impacts of climate change and become climate resilient by 2050; and
- On Amendments to Certain Legislative Acts of Ukraine Concerning the Simplification of Attraction of Investments and the Introduction of New Financial Instruments, No. 738-IX dated 19 June 2020 , which provides a general guideline for the introduction of green bonds in Ukraine and establishes rules for these market participants.

Some other documents as presented in Annex 5 are also consulted before drafting this Regulation.

III Proposed Regulatory and Legal Guidelines and Procedures

3.1 Objectives and Definitions

1. Objective

This Regulation establishes requirements for issuers of green bonds available to investors, sets up a registration and supervisory system for external reviewers of green bonds, and develop regulatory incentives for the green bond market in Ukraine.

2. Definitions

The following definitions are applicable to this Regulation:

- (1) Green Bond is a type of debt instrument, the proceeds of which would be exclusively utilised to finance or re-finance in part or in full new and/or existing projects that have positive environmental impacts.

(2) Issuer is a legal entity located in Ukraine that sells bonds in the capital market. A non-Ukraine Issuer may also issue Ukraine Green Bonds, provided that the eligible Green Projects are located in Ukraine.

(3) Sovereign is a State (Ukraine), including a government department or an agency of State.

(4) Taxonomy is a set of assets or expenditures financed by issuance of green bonds.

(5) Transition period is the period before Ukraine becomes a formal member of EU.

(6) Long term/run is the period after Ukraine becomes a formal member of EU.

3. Coverage

The Guidelines for issuance of EU Green Bonds Standards shall apply to the issuance of Green Bonds in Ukraine.

This Regulation is aligned with the EU Green Bond Standard. Any regulations issued by EC on the GBS should also be considered, where relevant.

4. Label

Label Green Bond or 'GB' must only be used for a bond that is aligned with the Ukraine Taxonomy and this Regulation during the bond term.

3.2 Mechanisms for Financing and Re-financing Green Projects

5. Issuance of green bonds

An issuance of Green Bonds in Ukraine must be governed under the National Securities and Stock Market Commission (NSSMC)'s regulations, requiring issuer to make disclosures as required.

In addition to the general registration requirements for debt issuances as stated in the Rules and Regulations of NSSMC, an issuer of a Green Bond must meet the following requirements:

(1) An information sheet from the issuer committing to invest all or major proportion of the proceeds of the bond in projects that qualify as green project(s) or assets in line with this Regulation;

(2) Pre-issuance review of the green bond information sheet; and

(3) A prospectus which includes project categories, project selection criteria, decision-making procedures, environmental benefits, use and management of the proceeds.

Any other documents that may be required by the NSSMC and other national regulators.

6. Use of the proceeds

The net proceeds of green bonds must be exclusively and fully utilised for

- (1) fixed assets;
- (2) capital expenditures including additional fixed tangible and intangible assets;
- (2) financial assets, including debt and equity; and
- (3) operating expenditures including all direct non-capitalised costs in most recent three years before the issuance of the green bond.

Further, If an issuer intends to utilise a proportion of the proceeds of Green Bonds to refinancing of existing green assets/expenditures, it must clearly present it in the information sheet and prospectus. The minimum proportion of the net proceeds of Green Bonds to finance and refinance the green assets/expenditures can be 85% in Ukraine during the transition period.

7. Alignment with taxonomy

The utilisation of net proceeds must be associated with the eligible economic activities that are aligned with the Ukraine taxonomy requirements within a specific duration.²¹

The duration must not be longer than five years starting from bond issuance. In some cases, a longer duration of up to ten years is allowed. But issuers need to provide rationale for the longer duration as presented in the taxonomy- alignment plan in the information sheet.

Issuers must prepare and release a taxonomy- alignment plan that will relate net proceeds to eligible activities that are consistent with the Ukraine taxonomy requirements within a specific .

The taxonomy- alignment plan must be subject to assessment by an external reviewer and established in annual base, including all measures and expenditures, necessary for the conversion of the economic activity so as to meet the Ukraine Taxonomy requirements.

8. Taxonomy requirements

Issuers shall allocate bond proceeds to the green projects/expenditures that may be related to one or more than one category below:

For the purposes of this Regulation, the following shall be the environmental objectives:

- (1) climate change mitigation;
- (2) climate change adaptation;
- (3) the sustainable use and protection of water and marine resources;
- (4) the transition to a circular economy;
- (5) pollution prevention and control;

²¹ As Ukraine taxonomy has not been developed, EU taxonomy can be used as a proxy of Ukraine taxonomy at current stage.

(6) the protection and restoration of biodiversity and ecosystems.

A list of detailed green bond catalogue shall be developed based on the broad categories above.

During transition period, the green projects/expenditures must exclude:

- Fossil fuel power;
- Vehicles powered through fossil- fuel combustion and ethanol;
- Large-scale hydroelectric energy (>25MW), due to potential risk to natural habitats; and
- Weapons, tobacco, gaming, palm oil industries, and direct manufacture of alcoholic beverages.

In the long run, the green projects/expenditures may exclude:

- nuclear energy; and
- natural gas.

3.3 Evaluating and Selecting Green Projects

9. Project evaluation and selection process

Issuers must establish the process for project evaluation and selection process before issuance of the Green Bonds. Issuers are required to provide the information within the context of the Issuer's overall objective, strategy, policy, and/or processes associated with environmental sustainability.

Issuers must disclose the project evaluation and selection process to investors in the prospectus for the issuance of green bond.

Issuers should disclose project evaluation and selection process to investors the following:

- Environmental sustainability objectives that the issuers intend to achieve through the Green Bonds;
- The criteria for determining the appropriateness of Green Projects based on the environmental sustainability objectives;
- The process for determining how the eligible green projects fit the criteria for the achievement of the environmental sustainability objectives;
- Related eligibility criteria or any process used to identify and manage potentially material environmental and social risk associated with the green projects; and
- Any green standards or certifications referenced in project selection.

Issuers must release on the Issuer-designated website at the time of issuance and throughout the term of green bond the following:

- Process for project evaluation and selection; and
- Use of proceeds of green bond issuance.

3.4 Procedures for Monitoring the Use and Management of Funds

10. Management of the funds

An escrow account must be opened specifically for the net proceeds of the green bond issuance.

The proceeds must be domiciled with the Custodian and the Trustees must ensure that the proceeds are allocated to the purpose stated in the prospectus.

Issuer and the Trustees must be the signatories to the escrow account.

Unallocated proceeds must be invested by the Trustees in money market instruments, the proceeds of which must not be used for greenhouse gas intensive projects that are inconsistent with the delivery of a low carbon and climate resilient economy.

11. Monitoring of funds

Net proceeds of bond issuance must be credited into an escrow account, which is classified into a sub-portfolio, or otherwise tracked by the Issuer in an adequate manner and confirmed with a formal internal process linked to the Issuer's funding and expenditure on green projects.

The total amount deployed from the net proceeds for eligible green projects does not need to occur at same time.

As long as the green bond remains unmatured, the balance of tracked proceeds of outstanding green bond must be checked against the allocations to eligible green projects frequently.

Issuers must disclose to investors the:

- Process for accounting and managing the net proceeds of the GB issuance; and
- Intended types of temporary placement for the balance of unallocated proceeds

3.5 Reporting Standards

12. GB information sheet

Before issuance of a green bond, issuers must:

- (1) fill the green bond information sheet as presented in Annex 1; and
- (2) submit the filled green bond information sheet to a pre-issuance review and receive a positive opinion by an external reviewer.

A green bond information sheet can include one or several green bond issuances.

13. Allocation report

Issuers must prepare an allocation report by using the format in Annex 2, and ensure that the proceeds of any green bonds concerned have been allocated based on the use of proceed requirements and taxonomy requirements on an annual basis until full allocation.

A green bond allocation report can include one or several issuances of green bonds.

Issuers must submit the allocation reports to an external reviewer 30 days after the end of each year.

Issuers must receive a post-issuance review of the allocation report drafted after the full allocation of the proceeds of the green bond based on use of proceed requirements and taxonomy requirements from an external reviewer.

After the release of the allocation report based on the release requirement, if the allocation of proceeds is revised, issuers must update the allocation report and receive a post-issuance review from an external reviewer for the updated allocation report.

14. Impact report

Issuers must prepare a green bond impact report on the environmental impact of the utilisation of the proceeds of green bonds by employing the format in Annex 3 after the full allocation of the proceeds of such bonds at least once during the term of the bond.

A single impact report can include several issuances of green bonds.

The impact report must contain:

- An illustration on the green projects;
- The environmental objective(s) met by the green projects;
- Detailed descriptions of green projects by nature of financing and refinancing;
- Information associated with the projects' environmental impacts; and
- Information related to the methodology and assumptions used to assess the green projects impacts.

15. Sovereign or municipality as an issuer

A sovereign or municipal issuer may receive pre-issuance and post-issuance reviews from an external reviewer, or from a state/local auditor or any other public entity that is assigned by the government to review compliance with this Regulation.

16. Prospectus for green bonds

A prospectus, which is to be released, must clearly contain the information on the use of proceeds and the compliance of the green bond issuance with this Regulation.

A prospectus must indicate that conflicts of interest are properly addressed and cover the information contained in the green bond information sheet.

17. Information release and NSSMC notification

Issuers must release on their website which is accessible without cost, in a special section entitled 'green bonds' until the end of the bonds period, the following information:

- (1) the filled green bond information sheet prior the issuance of the bond;

- (2) the pre-issuance review associated with green bond information sheet prior the issuance of the bond;
- (3) the allocation reports each year until the complete allocation of the proceeds of the green bond within three months after the end of the year;
- (4) the post-issuance reviews associated with the allocation reports; and
- (5) the green bond impact report.

Issuers must keep the NSSMC informed of the release of all the documents required within 30 days.

3.6 Control Procedures

18. Registration of external reviewer

External reviewers for green bonds must register with NSSMC before being involved in any external review business.

External reviewers registered with NSSMC must meet the requirements presented below at all times.

The State Audit Service of Ukraine (SAS) and other public entities assigned by Government can work as external reviewers to assess compliance of sovereign and municipal green bonds with this Regulation and should not be subject to below provisions of this Regulation for normal external reviewer.

19. Registration information required

To register as an external reviewer of green bonds, an applicant must provide the following information:

- (1) the legal name, address, and website of the applicant;
- (2) the name and contact details of the legal representative of applicant;
- (3) the legal status of the applicant;
- (4) the ownership and governance structure of the applicant;
- (5) the management team members of the applicant and their background;
- (6) the number of employees and contracted persons who provide external review service directly, and their background;
- (7) an illustration of the methodologies and procedures adopted by the applicant to conduct pre-issuance reviews and post-issuance reviews;
- (8) an illustration of the strategies or procedures adopted by the applicant to address any conflicts of interests;

(9) other services provided by the applicant if applicable.

NSSMC must approve the registration of an applicant as an external reviewer if an applicant meets the following requirements:

- (1) the management team of the applicant:
 - (i) has good professional reputation;
 - (ii) is sufficiently skillful to undertake the activities required as an external reviewer;
 - (iii) is professionally qualified; and
 - (iv) has experience in quality assurance, quality control, pre- and post-issuance reviews and audit in financial sector;
- (2) the number of staffs and contracted persons and their background are sufficient to provide the services; and
- (3) the internal methodologies, strategies and procedures are applicable and adequate.

NSSMC must confirm whether the applicant package contains the sufficient information in 30 working days after it receives the submission.

If the application package does not contain sufficient, NSSMC must ask the applicant to provide additional information and establish a deadline for submission. If the application package contains sufficient information, NSSMC must inform the applicant.

NSSMC must decide whether to accept applicant's registration in 60 working days after it receives the complete application package.

NSSMC must inform applicant whether the registration as an external reviewer is accepted or rejected in written form. It must also provide explanation for its decision. The register comes into force on the tenth working day after it accepts the registration.

20. Register of external reviewers

On its website, NSSMC must provide a publicly accessible register that includes:

- (1) all registered external reviewers;
- (2) the suspended registered external reviewers; and
- (3) the terminated registered external reviewers.

The register must cover contact details, websites and the effective dates of registered external reviewers.

21. Fees

NSSMC must impose registration fee on external reviewers for the expenditure associated with registration, recognition, supervision and other costs.

NSSMC must list all type of fees, rationale for the fee, amount of the fees, and payment methods.

22. Management team of external reviewer

The management team of the external reviewer must ensure:

- (1) the adequate control of the entity;
- (2) the independence of external review;
- (3) that conflicts of interest are adequately addressed; and
- (4) that the assessment activities follow the requirements of this Regulation.

23. Staffs and contracted persons of external reviewer

External reviewers must ensure that their staffs and contracted persons who provide necessary services at all times have the necessary qualifications.

External reviewers must ensure that their employees and contracted persons are not directly and indirectly involved in any issues related to fees or payments negotiation with the assessed entity.

24. Internal control mechanism

External reviewers must develop and possess an effective internal control mechanism for the services provided under this Regulation.

When undertaking its activities, external reviewers must ensure that it:

- (1) has a mechanism to divide its responsibilities adequately and independently;
- (2) has the sufficient resources and expertise and ability to access available relevant information; and
- (3) separates the functions of compensation from service performance.

External reviewers must ensure that the independence or accuracy of the assessment services will not be affected by their business interests through its internal assessment policies and procedures.

External reviewers must use and apply appropriate management system and procedures for information processing.

25. Contents of the pre-issuance and post-issuance reviews

The pre-issuance review of the information sheet must include:

- (1) an evaluation of whether the information contained in filled green bond information sheet meets the use of proceeds, taxonomy and other requirements in this Regulation; and
- (2) other requirements in Annex 4.

The pre-issuance review related to green bond information sheet must be released before the issuance of the bond.

The post-issuance review of allocation report must include:

- (1) an evaluation of whether actual allocation of the proceeds of the bond issuance meet the use of proceed requirements and taxonomy requirements based on the allocation report submitted by an issuer;
- (2) an evaluation of whether the actual allocation of the proceeds of bond issuance meet the proposed use of proceeds as indicated in the information sheet based on the information provided by an issuer; and
- (3) other requirements in Annex 4.

External reviewers must ensure, by all means, that their pre- issuance reviews and post-issuance reviews are conducted in accordance with a detailed analysis of all available information and appropriate approaches.

External reviewers must utilise the information with sufficient quality and reliable sources when undertaking the pre-issuance or post-issuance review activities.

External reviewers must release its post-issuance review 90 days after receiving the allocation report from issuers.

26. Outsourcing

External reviewers must not outsource their assessment activities to third party service providers particularly during the transition period.

27. Record maintaining requirements

External reviewers must maintain appropriate records of:

- (1) the persons involved in conducting and approving the pre-issuance reviews and the post-issuance reviews, and the date of approval;
- (2) the files to develop procedures and methodologies employed by the external reviewers to undertake and draft the pre-issuance and post- issuance reviews;
- (3) the supporting materials employed to establish the basis of any released pre-issuance or post-issuance review;
- (4) the files to establish the procedures and measures used by the external reviewers to meet the requirements of this Regulation; and

(5) record of correspondences associated with assessment activities, including all means of communications.

The files, supporting materials, and records must be maintained for at least 15 years and be readily available upon requested by NSSMC.

Once NSSMC terminates the registration of an external reviewer, the external reviewer must ensure that the files, supporting materials and records are maintained for extra five years.

28. Conflicts of interest and confidentiality of information

External reviewers must address any actual or potential conflicts of interest, no matter whether that conflicts of interest are associated with their staffs or contracted persons participating in the pre-issuance reviews and post-issuance reviews.

Revenue collected by external reviewers for the service must not be related to the outcomes of the pre-issuance or post-issuance review, or other services provided.

Staffs and contracted persons of external reviewers working directly on the assessment activities must be entitled to ensure professional confidentiality.

External reviewers must ensure that their staffs and contracted persons:

- (1) maintain the integrity and security of property and records in the possession of the external reviewer;
- (2) do not release any information on pre-issuance or post-issuance reviews to any other entities than the issuers that have asked for the assessment activities; and
- (3) do not utilise the confidential information for any other purpose than external reviews.

29. Other types of business of external reviewers

External reviewers that have other types of business than pre-issuance or post-issuance reviews must ensure that other types of business do not have conflicts of interest with the review associated with green bonds. The reviewers must report on any other types of business for the assessed entity or any related third party in their pre-issuance and post-issuance reviews.

30. Release of pre-issuance reviews and post-issuance reviews

External reviewers must release, without costs, on their websites the following items:

- (1) Pre-issuance reviews in a special section entitled green bond - Pre-issuance reviews; and
- (2) Post-issuance reviews in a special section entitled green bond - Post-issuance reviews.

The pre-issuance reviews must be released to the public before the prospectus is issued to the public.

The post-issuance reviews must be released to the public right after the assessment of the allocation reports is completed by the external reviewer.

The pre-issuance reviews and the post-issuance reviews, must be publicly available until the end of bond term after their release on the external reviewer's website.

External reviewers that decided to stop offering pre-issuance review or a post-issuance review service must provide the reasons for that decision in the respective sections on their websites immediately after they make such decision.

31. Third-country external reviewer

NSSMC should not accept registration of a third-country external reviewer that may provide its services in accordance with this Regulation to issuers particularly during the transition period.

3.7 Supervision by NSSMC

32. NSSMC as a supervisor

NSSMC is a regulator that is responsible for supervising all aspects of the green bond in Ukraine.

33. Rights of NSSMC

In order to enforce the provisions of this Regulation, NSSMC must have rights to require

- (1) issuers to provide the information as presented in green bond information sheet (see Annex 1);
- (2) issuers to release the allocation report per year as presented in Annex 2;
- (3) issuers to release the impact report as presented in Annex 3;
- (4) issuers to submit the required information and documents;
- (5) an issuance of green bonds to be banned or suspended for a maximum of 22 consecutive business days in case that there is a rationale for believing that requirements for green bond information sheet, allocation report or impact report of this Regulation have been violated;
- (6) the fact to be disclosed for not being able to meet the requirements in green bond information sheet, allocation report and impact report under this Regulation; and
- (7) its staffs to conduct spot examination so as to access documents and other data in any forms in case that there is a rationale for believing that documents and other data may be used to confirm an violation of this Regulation.

NSSMC may require the relevant judicial authority to authorize the rights to undertake above activities.

NSSMC must exercise its rights to undertake the above activities in any of the following means:

- (1) directly and independently;
- (2) with other regulators;
- (3) on behalf of other regulators; and
- (4) through application to the judicial authorities.

NSSMC must ensure that it has necessary supervisory and investigatory rights to undertake its activities.

34. Administrative sanctions and other measures

NSSMC must have the rights to impose administrative sanctions and take other administrative measures. Those administrative sanctions and other measures are applicable to:

- (1) violations of requirements for information sheet, pre-issuance and post-issuance review of the green bond; and
- (2) inability to collaborate with or comply with NSSMC in an investigation, inspection or request.

NSSMC may decide not to impose administrative sanctions on the violations that are already subject to criminal sanctions based on national laws.

NSSMC must impose the following administrative sanctions and other administrative measures associated with the violations of requirements for information sheet, pre-issuance and post-issuance review of the green bond:

- (1) a public notice revealing the natural person or the legal entity that is committed to violation and the nature of the violation;
- (2) an order demanding the natural person or legal entity that is committed to stop the conduct of violations;
- (3) amount of administrative penalty at twice the amount of the profits gained or loss avoided because of the violation;
- (4) maximum administrative penalty of EUR 250,000 equivalent or 0.5 % of the total annual turnover based on the most updated audited financial statements of a legal person; and
- (5) maximum administrative penalty of EUR 25,000 equivalent for a natural person.

Additional sanctions or additional measures can be imposed under this Regulation depending on the extent of violations.

35. Factors to be considered when imposing sanctions and other measures

NSSMC, when deciding the type and level of administrative sanctions and other administrative measures, must consider all relevant conditions including:

- (1) the seriousness and length of the violation;

- (2) the extent of responsibility of the person for the violation;
- (3) the financial condition represented by the total turnover of the responsible legal person or the annual income and net assets of the responsible natural person;
- (4) the effects of the violation on individual investors' interests;
- (5) the significance of the received earnings and avoided losses by the person responsible for the violation or the net losses for third parties because of the violation, in case that they can be estimated;
- (6) the extent of collaboration of the person responsible for the violation with NSSMC;
- (7) previous record of violations by the person responsible for the violation; and
- (8) actions taken by the person responsible after the violation to avoid its duplication.

When imposing administrative sanctions and other administrative measures above, NSSMC must work together with other regulators to make sure that these measure are effective and adequate under this Regulation. It must work with other regulators on its action so as to prevent repetition.

NSSMC must make sure that any actions taken under this Regulation have rationale behind and let the person responsible have a right of appeal before a tribunal.

36. Release of decisions

When NSSMC decides to impose an administrative sanction or other administrative measure for violation of this Regulation, the decision must be released by NSSMC on its official website right after it notifies the person. The release of a decision must cover the information on the type and nature of the violation and the identity of the persons responsible.

If the release of such decision would result in a shock to the stability of financial markets or an effect on an on-going investigation, NSSMC must do one of the following:

- (1) delay the release of the decision to impose a sanction or a measure until when the causes for non-release do not exist;
- (2) release the decision to impose a sanction or a measure through anonymous publication, which will ensure an security of the personal data concerned; and
- (3) do not release the decision to impose a sanction or a measure.

If the decision to impose a sanction or a measure is subject to lawsuit to the relevant judicial or other authorities, NSSMC must release such information and any subsequent information on the outcome of such lawsuit immediately on its official website.

NSSMC must make sure that any released information must be on their official website for a period of at least five years starting from its first release.

37. Information requested

NSSMC may ask the following persons to provide the information that is needed to undertake its activities under this Regulation in form of simple request or by decision:

- (1) persons who provide the services in the external reviewer;
- (2) members of board in the external reviewer;
- (3) management team member in the external reviewer; and
- (4) any other persons who actually undertake the assessment activities in the external reviewer.

When delivering a simple request and decision to the persons above, NSSMC must:

- (1) indicate this provision under this Regulation as the legal basis of that request;
- (2) indicate the purpose of the request;
- (3) indicate the information requested;
- (4) set a deadline for information to be submitted for a decision;
- (5) suggest the potential periodic penalty and fine where the information requested is incomplete and incorrect or misleading respectively; and
- (6) suggest the right to appeal the decision.

The persons authorised to represent external reviewer by law or by constitution can also provide the information requested in case that the above persons are not entitled to do so. Lawyers authorised may provide the information on behalf of their clients.

38. Investigations

NSSMC may undertake necessary investigations of persons. In that case, the staffs and other persons authorised by NSSMC must be entitled to:

- (1) investigate any records, data, procedures and other evidences that are associated with the business activities without regarding the sources;
- (2) acquire official copies of such records, data, procedures and other evidences;
- (3) request any staffs from the external reviewers to provide responses to the facts or documents associated with the issues under inspection;
- (4) conduct interview with any other natural or legal person in order to gather information associated with the issue under investigation; and
- (5) ask for copies of communication and data.

The natural or legal person must submit the required records, data, procedures and other evidences for investigations based on a decision of NSSMC. The decision must indicate the issue and purpose of the investigation, the periodic penalty, fine, the legal remedies available and the right to have the decision reviewed by the Court of Justice of the country.

39. Spot examination

NSSMC may undertake all necessary spot examination at the business premises, land or property of the legal persons. If necessary, NSSMC may undertake spot examination without prior notice.

The staffs empowered by NSSMC to undertake an spot examination may go into any business premises, land or property of the legal persons depending on the requirements defined in the examination decision adopted by NSSMC and must have all the rights for the investigations above. In particular cases, the staffs must possess the rights to seal any business premises, property and books or records for the purpose of inspection.

The staffs empowered by NSSMC to conduct an spot examination must exercise their rights once receiving a written authorization indicating the issues and purpose of the examination, and the periodic penalty if the persons do not submit the required materials to the examination.

The legal or natural persons must submit required materials to spot examination based on the decision of NSSMC, which must indicate the issue and purpose of the examination, starting date and the potential periodic penalty, the legal remedies available as well as the right to have the decision reviewed by the Court of Justice.

40. Supervisory measures

If NSSMC finds that a person violates the regulation below (next provision), it must take one or more of following measures:

- (1) terminate the registration of an external reviewer;
- (2) suspend the external reviewer from the business under this Regulation, until the violation has been stopped;
- (3) adopt a decision to demand the person to stop the violation;
- (4) adopt a decision to impose fines;
- (5) adopt a decision to impose periodic penalty; and
- (6) release a public statement.

NSSMC must terminate the registration or the recognition of an external reviewer under the following conditions:

- (1) the external reviewer has received the registration or the recognition by providing incorrect information or through any other unusual methods; and
- (2) the external reviewer no longer complies with the requirements for registration or recognition.

When NSSMC terminates the registration or the recognition of the external reviewer, it must give rationale for its decision. The termination will be effective right after NSSMC's decision.

When taking the supervisory measures above, NSSMC must consider the factors below:

- (1) the period and times of the violations;
- (2) the violation associated with financial crime;
- (3) the intention or negligence of violation;

- (4) extent of the responsibilities for violation;
- (5) the financial condition as represented by the total turnover of the responsible legal person or the annual income and net assets of the responsible natural person;
- (6) the effect of violation on the individual investors' interests;
- (7) the significance of the net income received, losses avoided by the person who has been committed to the violation or the losses for third parties because of the violation;
- (8) the extent of cooperation of the person responsible for the violation with NSSMC;
- (9) former records of violations by the person committed to the violations; and
- (10) actions taken by the person responsible for the violation to avoid its duplications.

NSSMC must inform the person responsible for the violation of any measures taken. It must release any such action on its website within 15 working days from the date when such measures were decided.

The measures released to the public must cover a statement suggesting that the person responsible for the violation has the right to appeal the decision.

41. Fines

In case that NSSMC detects that an external reviewer has, intentionally or negligently, been responsible for the violations, it must make a decision to impose a fine.

A violation will be recognized to be responsible intentionally if NSSMC proves that objective factors demonstrate that a person took action deliberately.

The violations are defined as:

- (1) do not comply with this provision of Regulation;
- (2) provide false statement during registration as an external reviewer, or the use of any other unusual methods to receive such registration;
- (3) not being able to respond to a decision of information requested above or submit the incorrect or misleading information instead; and
- (4) undertaking the activities of external reviewers without registration.

The minimum and maximum amounts of the fine must be EUR 10,000 and EUR 100,000 equivalent respectively depending on application of supervisory measures by NSSMC.

In principle, if a person has directly or indirectly received financial benefits from the violation, the amount of the fine must exceed the amount of financial benefit.

In case that there are of several cases of violations connected, only the highest fined violation should be applicable to the fine.

42. Periodic penalty

NSSMC must, by decision, adopt a periodic penalty so as to force:

(1) a person to stop a violation with respect to not being able to respond to a decision of information requested above or submit the incorrect or misleading information;

(2) a person:

(i) to provide, by a decision, full information under section of information requested in this Regulation;

(ii) to respond to an investigation under section of investigation in this Regulation; and

(iii) to respond to an spot examination under section of spot examination of this Regulation.

The amount of the periodic penalty must be estimated at 2% of the average daily turnover in the preceding business year for a legal person, or 1.5% of the average daily income in the preceding calendar year for a natural person. It must be effective starting from the date the decision imposing the periodic penalty is issued.

A periodic penalty must be applicable per day and must be imposed for a maximum period of six months after the NSSMC's decision is issued. At end of the period, NSSMC must evaluate the decision taken.

43. Release of fines and periodic penalty

NSSMC must release to the public every fine and periodic penalty that has been imposed, unless such release would result in shocks to the financial markets or seriously negative impact on the parties involved.

Once NSSMC decides not to impose fines or periodic penalty, it must inform other regulators concerned accordingly and provide the rationale for its decision.

The amounts of the fines and periodic penalty collected must be submitted to Ministry of Finance, Government of Ukraine.

44. Procedures for supervisory measures and fines

Once NSSMC discovers that there exist serious indications of one or more of the violations defined in this Regulation, NSSMC must designate a staff inside NSSMC to examine the violations. The staff must not have any connections to the direct or indirect supervision or registration process of the external reviewer and must undertake his activities independently.

The staff must examine the alleged violations, consider any comments provided by the persons responsible, and must deliver a report with findings to NSSMC.

The staff must possess the rights to ask for the information and to conduct investigations and spot examination.

The staff must have the rights to access all documents and information collected by NSSMC when undertaking its investigation activities.

After completing his investigation and before submitting his report with his findings to NSSMC, the staff must provide the persons responsible with the opportunity to be informed and to make comments.

The defence right of the persons responsible must be completely respected during the investigations.

After submitting his report with findings to NSSMC, the staff must inform the persons concerned of the fact. The persons concerned must have a right to access the file, subject to the legitimate interest of other persons in the protection of their business secrets. The right of accessing the file must not exceed the confidential information affecting third parties.

Based on the report with findings, NSSMC must determine whether one or more of the violations has been committed by the persons responsible, and must take a supervisory measure and impose a fine.

NSSMC must employ criminal prosecution in undertaking its activities under this Regulation if it finds that there are strong evidences of the possible existence of criminal offences.

45. Final jurisdiction of the Court of Justice

The Court of Justice of Ukraine must have final jurisdiction to review NSSMC's decisions on a fine or a periodic penalty. The court has right to terminate, decrease or increase the fine or periodic penalty imposed.

3.8 Incentives for GB Issuance

46. Incentives for GB issuers

The issuance of green bonds entails additional costs, particularly during the initial phase of the application of the GB standard.

NSSMC must work with Ministry of Finance and other regulators to support the issuance of the GB by utilising the public guarantee schemes in Ukraine. The funding for the public guarantee schemes to support GB issuance will be from Ministry of Finance and managed by a public credit guarantee company in Ukraine.

The eligible instruments include newly issued GB issued by both sovereign and municipal governments.

When a bond is guaranteed by a public credit guarantee company, interest and principal will be paid even if the sovereign and municipal issuers default.

47 Incentives for GB investors

Both Individual and institutional investors do not have to pay income tax on interest from their green bonds in Ukraine. This type of tax incentive is applied to both public and private green bonds in the Ukraine market during the transition period. In the long run, investors only need to pay income tax on 50% of interest from green bonds in Ukraine.

A preferential withholding tax rate must be established to attract foreign investors into domestic bond markets.

48 Incentives for GB listing and trading

Ukraine Exchange shall launch dedicated listing sections for green bonds during the mid-transition period to support green financing and investment. Ukraine Exchange must require external reviews as a listing requirement on their green bond segments.

Ukraine Exchange may consider various arrangements for trading green bonds in the exchange markets as, traditionally, corporate bonds are usually traded in OTC markets rather than on exchanges.

Ukraine Exchange may consider the development of green bond indices to widen the investor base in the long term.

Annex 2.1 Information Sheet

Green Bond Information Sheet		Information filled by Issuer	Notes
1. Issuer Details	1.1 Issuer information	Registered legal name	
		Issuer business sector/industry	
		Issuer type	
		Business registration number	
		Address	
		Website	
		Date of publication of this information sheet	
	1.2 Contact person information	Name	
		Position	
		Contact telephone number	
WhatsApp, Telegram, or other number			
Email address			
2. Bond Details	2.1 Green Bond Details	Name of the bond assigned by the issuer	
		Amount issued in local currency	
		Issue date	
		Term and maturity date	
		Lead underwriters (if applicable)	
3. Statement	3.1 Compliance with this Regulation	Compliance with all articles of this Regulation	
4. Environmental Compliance	4.1 Environmental strategy and rationale	Compliance with the broader environmental strategy of the issuer	
		Environmental objectives related to this Regulation	
5. Intended Allocation of Bond Proceeds	5.1 Estimated Time until full allocation of proceeds	The proceed allocation period	
		The date for full proceed allocation	
		Justification for a period longer than 5 years' full proceed allocation	
	5.2 Process for selecting green projects and estimated environmental impact	A description of the processes to determine the alignment of projects with the taxonomy requirements	
		A description of the relevant technical screening criteria considered	
		Information on the methodology and assumptions to be used to estimate the key impact metrics based on this Regulation and justification for not availability of the information	
		Information on relevant standardisation or certification used in project evaluation and selection if applicable,	
		A calculation of expected positive and negative environmental impacts in aggregated form and justification for not availability	
	5.3 Intended qualifying green projects	Their environmental objectives related to this Regulation	
		Their types, sectors, and the respective NACE codes	
		Amount and the percentage of proceeds to be allocated to projects after and before bond issuance respectively	

		A calculation of the expected revenue loss related to eligible tax relief for a sovereign/municipal issuer		
		An indication of the proportion financed by the bond for a co-finance project		
		Links to websites with relevant information if available		
		Links to relevant public documents with more detailed information if available		
		Approximate proportion of refinanced assets/expenditures		
6. Management of Proceeds	6.1 Unallocated proceeds	Information on the temporary use of unallocated proceeds and its impact on the environmental objectives		
7. Reporting Details	7.1 Annual allocation report and impact report	A link to the website for expected allocation reports and impact reports		
		An indication of allocation reports covering amounts allocated and the expected positive and negative environmental impacts		
8. Verification Details	8.1 External Reviewer	Identity of approved external reviewer		
		Contact details of the external reviewer including website		
9. Others	9.1 Other relevant information	Other relevant information requested		

Source: Adapted from Annexes to the Proposal for a Regulation of the European Parliament and of the Council on European green bonds, 2021.

Annex 2.2 Allocation Report

Green Bond Allocation Report		Information filled by Issuer	Notes
1. Issuer Details	1.1 Issuer information	Registered legal name	
		Issuer business sector/industry	
		Issuer type	
		Business registration number	
		Address	
		Website	
	1.2 Contact person information	Name	
		Position	
		Contact telephone number	
		WhatsApp, Telegram, or other number	
2. Bond Details	2.1 Green Bond Details	Name of the bond assigned by the issuer	
		Amount issued in local currency	
		Issue date	
		Term and maturity date	
		Lead underwriters (if applicable)	
3. Statement	3.1 Proceed allocation compliance	Proceed allocations have been in line with the requirements of this Regulation	
4A. Allocation of Bond Proceeds at Project Level	4.1 Environmental objectives	Environmental objectives related to this Regulation	
	4.2 Type and sector	The types, sectors, and the respective NACE codes	
	4.3 Amount and proportion of allocation	Amount and the percentage of proceeds to be allocated respectively to projects after and before bond issuance	

	4.4 Sovereign and municipal issuers	A calculation of the expected revenue loss related to eligible tax relief for a sovereign/municipal issuer		
	4.5 Cofinance	An indication of the proportion financed by the bond for a co-finance project		
	4.6 Taxonomy alignment plan	Progress in the implementation of the taxonomy plan during the reporting period, and the estimated date of completion		
	4.7 Safeguards	Confirmation of compliance with minimum safeguards		
4B. Allocation of Bond Proceeds at Portfolio Level	4.8 An overview over all outstanding green bonds	Indicating their individual value		
		Indicating their combined value		
	4.9 An overview over the eligible financial assets	Total amortised value		
		Environmental objectives related to this Regulation		
		Types and sectors		
		Indication of the proportion financed by the bond if available		
		An indication of which delegated provision adopted based on this Regulation were used to determine the taxonomy technical screening criteria		
		Value of each asset, or group of assets if relevant		
	4.10 A comparison of the total value of outstanding green bonds and the total amortised value of eligible financial assets	Comparison must show that the latter is either equal to or higher than the former.		
		Total outstanding value of green bonds must be based on the yearly average of quarter-end values, and the total amortised value of the financial assets must be based on the yearly average of quarter-end values.		
5. Verification Details	5.1 External Reviewer	Identity of approved external reviewer		
		Contact details of the external reviewer including website		
6. Others	6.1 Other relevant information	Other relevant information requested		

Source: Adapted from Annexes to the Proposal for a Regulation of the European Parliament and of the Council on European green bonds, 2021.

Annex 2.3 Impact Report

Green Bond Impact Report		Information filled by Issuer	Notes
1. Issuer Details	1.1 Issuer information	Registered legal name	
		Issuer business sector/industry	
		Issuer type	
		Business registration number	
		Address	
		Website	
		Date of publication of this report	
	1.2 Contact person information	Name	
		Position	
		Contact telephone number	
WhatsApp, Telegram, or other number			
		Email address	
2. Bond Details	2.1 Green Bond Details	Name of the bond assigned by the issuer	
		Amount issued in local currency	
		Issue date	

		Term and maturity date		
		Lead underwriters (if applicable)		
Statement	3.1 Environmental strategy and rationale	Status of compliance with the broader environmental strategy of the issuer as indicated in the factsheet		
		an description of any variations to broader environmental strategy of the issuer since the release of the factsheet if applicable,		
		Environmental objectives related to this Regulation intended to be achieved		
3. Allocation of Bond Proceeds	4.1 Environment objectives	Environmental objectives related to this Regulation		
	4.2 Types and sector	The types and sectors of projects where bond proceeds have been allocated		
	4.3 Amount and proportion of allocation	Amount and the percentage of proceeds to be allocated respectively to projects after and before bond issuance		
	4.4 Sovereign and municipal issuers	A calculation of the expected revenue loss related to eligible tax relief for a sovereign/municipal issuer		
	4.5 Cofinance	An indication of the proportion financed by the bond for a co-finance project		
	4.6 Taxonomy alignment plan	Indication of those asset under a taxonomy alignment plan, the duration of each plan, and the date of completion of each asset		
	4.7 Technical screening criteria	An indication of which provisions adopted according to this Regulation were used to determine the taxonomy technical screening criteria, and their application date		
4. Environmental Impact	5.1 Environmental Impacts	An calculation of positive and negative environmental impacts in aggregated form		
	5.2 Methodology and assumptions	Information on the methodology and assumptions utilised to assess the impacts of projects		
	5.3 Related information and metrics	Information on the projects' positive and negative environmental impacts and related metrics		
5. Verification Details	6.1 External Reviewer	Identify of approved external reviewer		
		contact details of the external reviewer including website		
6. Others	7.1 Other relevant information	Other relevant information requested		

Source: Adapted from Annexes to the Proposal for a Regulation of the European Parliament and of the Council on European green bonds, 2021.

Annex 2.4 Pre-issuance and Post-Issuance Reviews

Pre-issuance and Post-Issuance Reviews			Information filled by Issuer	Notes
1. General Information	1.1 Issuer information	Registered legal name of issuer		
		Issuer business sector/industry		
		Issuer type		
		Business registration number		
		Address		
		Website		
	1.2 External reviewer	Registered legal name of external reviewer		
		Business registration number		
		Address		
		Name of Contact Person		

		Name and job title of the lead analyst in a given assessment activity		
		Name and position of the person responsible for approving the pre-issuance review or post-issuance review		
		Contact telephone number		
		Email address		
		Website		
		Date of publication of this review		
2. Bond Details	2.1 Green Bond Details	Name of the bond assigned by the issuer		
		Amount issued in local currency		
		Issue date		
		Term and maturity date		
		Lead underwriters (if applicable)		
3. Introductory Statements	3.1 Pre-issuance reviews	A statement that an external reviewer has evaluated the filled green bond information sheet as presented in Annex 1 based on this Regulation		
		A statement that this pre-issuance review is an independent observation of the external reviewer		
		A statement that the independent observation of the external review is to be dependent upon only to a limited extent		
	3.2 Post-issuance reviews	A statement that an external reviewer has evaluated the filled allocation report as presented in Annex II based on this Regulation		
		A statement that this post-issuance review is an independent observation of the external reviewer		
		A statement that the independent observation of the external review is to be dependent upon only to a limited extent		
4. Statements on the Compliance with the Green Bonds Regulation	4.1 Positive opinion	If the observation provided by the independent reviewer is positive, a statement that the bond complies with the requirements of this Regulation and that the designation 'green bond' is applicable to that bond		
	4.2 Native opinion	If the observation provided by the independent reviewer is negative, a statement that the bond does not comply with the requirements of this Regulation and that the designation 'green bond' is not applicable to that bond		
	4.3 In question	If the observation provided by the independent reviewer suggests that the issuer does not intend to meet the requirement of this Regulation, or ca not do so, a statement that the designation ' green bond' is only applicable to that bond in question if the necessary measures need to be taken		
5. Sources, Methodologies, and Assumptions	5.1 Information sources	Information sources to prepare the pre-issuance review or the post-issuance review, including links to data and methodology used if available		
	5.2 Methodologies and assumptions	An illustration on the assessment methodologies and key assumptions		

	5.3 Assumptions and taxonomy requirements used	An illustration on the assumptions and taxonomy requirements employed, and a clear statement that the external reviewer takes into account the quality of information provided by the issuer a or related third party is sufficient to perform the pre-issuance review or the post-issuance review		
6. Assessment and Opinion	6.1 pre-issuance reviews	A detailed evaluation of whether the filled green bond information sheet complies with this Regulation		
		The observation of the external reviewer on the evaluation mentioned above		
	6.2 post-issuance reviews	A detailed evaluation of whether the proceed allocations meet the requirements of this Regulation in accordance with the information provided to the external reviewer		
		An evaluation of whether the issuer has met the intended use of proceeds specified in the green bond information sheet in accordance with the information provided to the external reviewer		
		The observation of the external reviewer on the two assessments above		
7. Others	7.1 Other relevant information	Other relevant information requested		

Source: Adapted from Annexes to the Proposal for a Regulation of the European Parliament and of the Council on European green bonds, 2021.

Annex 2.5 Documents Consulted

1. Proposal for a Regulation of the European Parliament and of the Council on European green bonds, July 2021.
2. Annexes to the Proposal for a Regulation of the European Parliament and of the Council on European green bonds, 2021
3. Regulation (EU) 2020/852 of the European Parliament and of the Council, June 2020
4. Regulation (EU) 2019/2088 of the European Parliament and of the Council, November 2019
5. The European Climate Law (Regulation (EU) 2021/1119 of the European Parliament and of the Council, June 2021.
6. The European Climate Pact, December 2020
7. The 2030 Climate Target Plan, March 2020.
8. The EU Adaptation Strategy, December 2019.
9. On Amendments to Certain Legislative Acts of Ukraine Concerning the Simplification of Attraction of Investments and the Introduction of New Financial Instruments, No. 738-IX, June 2020.
10. Green Bond Framework The Government of the Hong Kong Special Administrative Region, February 2022
11. Green Bond Guidelines, Japan, March 2017
12. New Rule and Sundry Amendments to the Rules and Regulation of the Commission, Nigeria

**Part 3 and 4 Legal and Regulatory Review of the Green
Bond Market Concept (and Action Plan)**

(Deliverable 3 & 4)

Executive Summary

This report (Deliverable 3) presents a systematically legal and regulatory review of the Green Bond Market Concept (the Concept) and provides a set of recommendations based on the results of the review.

General review (comment) reveals that the Concept provides a clear set of directions and tasks for the introduction of the green bond market in Ukraine. The purpose and the directions of comprehensive measures are well defined. The expected results are well reported.

However, the Concept is not well structured and some issues related to laws and regulation and other subjects can be further improved. In particular, the Concept does not present the content in form of roadmap of green bond development in Ukraine. In addition, the Concept is not consistent with the Action Plan of Measures for the Implementation of the Concept of the Introduction of the Green Bond Market in Ukraine (the Action Plan, Annex 3).

Specific review (comment) finds that the Concept does not mention the green bond standard/principle that will be adopted by Ukraine. This is normally one of the important prerequisites for the introduction of the green bond market in any countries. The Concept does not indicate which standard/principle that Ukraine will follow in the near future.

The Concept does not indicate a need to establish the Ukraine Green Bond Standard (UGBS)/Principle, which will guide the introduction, issuance and circulation/trading of green bonds in the country. Lack of legal and regulatory framework is only one of the key issues for introduction of green bond in Ukraine. Ukraine definitely needs an independent (specialized) law or regulation on green bonds.

The Concept does not present a need to develop the main components of green bonds including use of proceeds of green bond and other components.

Although the creation of prerequisites for the introduction of the green bond market includes establishment of taxonomy, the Concept does not illustrate it in details. In fact, identify the need for development of Ukraine Taxonomy is an important task for the Concept.

In general, the Concept does not present the concrete measure for promotion of investment, explicit public credit enhancement to green bonds, and attraction of foreign investors into domestic bond markets.

Only some points in the Concept are the promotion of the development of green bond market while other points are the components/procedures of green bond and should be ensured through Ukraine green bond regulation.

It would be better if the Concept only focuses on the results of national environmental impacts rather various other impacts through issuance of green bond.

The recommendations based on the review above are given below:

1. The Concept can be structured as follows:
 - Introduction/General Provision: background
 - Rationale for introduction of Green Bond in Ukraine: associated with national environmental strategy/objective and sector strategy particular in some important sector for Ukraine.
 - Stages for Green Bond development: steps to reach final implementation of green bond in Ukraine
 - Institutional Arrangements: institutional reforms for better implementation of green bond
 - Legal and Regulatory Measures: new/updated laws and regulations for implementation of green bond
 - Other measures: including policies/strategies, initiatives, public awareness, training and other measures
 - Constrains: limitations currently in Ukraine
2. The Concept should clearly present a need to establish the Ukraine Green Bond (GB) Standard/Principle, which should be aligned with EU GBS. The Ukraine GB Standard/Principle includes:
 - (1) Scope and Objective of the UKRAINE Green Bond Standard/Principle
 - (2) Definition of UKRAINE Green Bond

- (3) Core Components of the UKRAINE GBS
 - (i) Green Projects
 - (ii) Green Bond Framework
 - (iii) Reporting
 - (iv) Verification
- 3. The Concept should clearly suggest a need to establish a completely new regulation on green bond that should be consistent with EU GB regulation. The new regulation covers: a set of regulatory and legal guidelines and procedures for Ukraine green bond market from the perspectives of:
 - (1) mechanisms for financing and re-financing green projects,
 - (2) evaluating and selecting green projects,
 - (3) procedures for monitoring the use and management of funds,
 - (4) reporting standards,
 - (5) control procedures,
 - (6) supervision by the National Securities and Stock Market Commission (NSSMC), and
 - (7) incentives for GB Issuance.
- 4. The Concept should be consistent with Action Plan of Measures for the Implementation of the Green Bond in Ukraine. As presented in Recommendation 1 above (new structure), the proposed green bond development, institutional arrangements, legal and regulatory measures and other measures should be consistent with the same sections in the Action Plan. If the structure of the Action Plan remains unchanged, institutional arrangements and other measures in the Concept can be combined into organizational measures.
- 5. As the original purpose of Law of Ukraine dated June 19, 2020 No. 738-IX "On Amendments to Certain Legislative Acts of Ukraine Regarding the Simplification of Investment Attraction and the Introduction of New Financial Instruments" is to attract foreign investment, this Law might not be applicable to Ukraine GB in the long term. Ukraine needs to have a new law for green bond. As Ukraine needs to develop a completely new Regulation, some principles in the law for green bonds may be incorporated in the new Regulation in the short term.
- 6. As taxonomy is a tool to help investors, companies, issuers and project promoters navigate the transition to a low-carbon, resilient and resource-efficient economy, the Concept should clearly initiate a detailed study and design of Ukraine taxonomy in its introduction of green bond in Ukraine. In particular, the Ukraine taxonomy should be designed around the key sectors (including energy, energy efficiency, transport, natural resources and many others) with environmental benefits in Ukraine.

I Introduction

The TOR stipulates that the consultant should submit a series of deliverables within the framework of the mission. The completion of this report marks the third and fourth of 5 reporting requirements set out in the TOR²²:

- Deliverable 1: Written analysis of green bond standards/guidance developed in EU and other countries; identification of the best practices suitable for Ukraine
- Deliverable 2: Development of the set of recommendations for the necessary legal and regulatory changes to introduce Green Bonds Standard in Ukraine in a form of written report
- Deliverable 3: Legal and regulatory review of the Green Bond Market Concept, prepared by the Working Group on Green Finance in a form of analysis papers.
- Deliverable 4: Legal and regulatory review of the Action Plan for the creation of the green bonds market (prepared by the Working Group on Green Finance).
- Deliverable 5: Estimations of the potential volumes of the green bonds market in Ukraine. Two presentations on study findings to the stakeholders in Ukraine.

The objective of this report is to review the Green Bond Market Concept prepared by the Working Group on Green Finance in a form of analysis papers as presented in Annex 1, and to review the Action Plan for the creation of the green bonds market from the legal and regulatory perspective (in Annex 2, 3 and 4).

II General Comments

The Green Bond Market Concept (the Concept) was drafted by a Working Group on Green Finance based on the Law of Ukraine dated June 19, 2020 No. 738-IX "On Amendments to Certain Legislative Acts of Ukraine Regarding the Simplification of Investment Attraction and the Introduction of New Financial Instruments".

The Concept presents rationale for introduction of green bond by raising some environmental and financial issues in Ukraine:

- low energy efficiency such as high energy intensity, which resulted in high emissions of CO₂.
- no focus on environmental protection and extensive exploitation of natural resources, which would not ensure sustainable economic development.
- shortage of financial resources for investments in environmental projects in private sector.

The Concept analyses the urgent needs of adopting this Concept due to insufficient awareness of state authorities, insufficiently clear division of functions, low level of coordination of actions and institutional capacity of state authorities, and the need to improve the regulatory framework in this area.

As shown in Annex 1, the Concept presents its purpose and terms of implementation: "to define directions and tasks for the introduction of the green bond market, which will make it possible to attract financing for the implementation of environmental projects, create prerequisites for the development of such a market in Ukraine, and increase its investment attractiveness".²³

In order to achieve this purpose, the Concept recommends the three directions of measures:

- creation of prerequisites for the introduction of the green bond market;

²² TOR, Supporting Green Recovery in Ukraine

²³ Concept: Introduction and Development of the Green Bond Market in Ukraine

- ensuring the attraction of financing for the implementation of the environmental project by issuing green bonds;
- promoting the development of the green bond market.

The Concept forecasts the impact on benefits of major stakeholders including citizens of Ukraine, financial and non-financial companies, investment and donor funds, international development banks, institutional investors.

The Concept projects the results in financing, reduction of energy consumption, security market, awareness of risk management and regulation, investment, socio-economic development, and national strategic goals.

The Concept finally presents the needs to assess the constraints in financial, material and technical, and labor resources for implementation of the measures.

In general, the Concept provides a clear set of directions and tasks for the introduction of the green bond market in Ukraine. The purpose and the directions of comprehensive measures are well defined. The expected results are well reported.

However, the Concept is not well structured and some issues related to laws and regulation and other subjects can be further improved (see next two sections).

In particular, the Concept does not present content of green bond development in Ukraine in form of the roadmap (stages with timeline).

In addition, the Concept is not consistent with the Action Plan of Measures for the Implementation of the Concept of the Introduction of the Green Bond Market in Ukraine (the Action Plan, Annex 3). The Action Plan consists of Legislation Development and organizational measures while there is no a consistent structure in the Concept.

III Specific Comments

General Provisions

The Concept provides the legal basis for the introduction of green bond and the development of this Concept: the Law of Ukraine dated June 19, 2020 No. 738-IX "On Amendments to Certain Legislative Acts of Ukraine Regarding the Simplification of Investment Attraction and the Introduction of New Financial Instruments". However, this Law covers both investment attraction and new financial instruments. New financial instruments covers a wide ranges of financial projects. Obviously, Ukraine definitely needs an independent (specialized) law or regulation on green bonds.

The Concept suggests that the proceeds of green bond will be exclusively used for financing the implementation of an environmental project. The definitions of green bonds and proportion of use of proceeds should also be strictly regulated by the relevant authority in Ukraine. Nevertheless, the Concept does not define the green bond in Ukraine context at the beginning of the text. In addition, the Concept does not present the needs to develop main components of green bonds including use of proceeds of green bond.

A problem that needs to be solved

The concept presents rationale for introduction of green bond by raising some environmental and financial issues in Ukraine: low energy efficiency, low priority of environmental protection and lack of financial resources for investments in environmental projects in private sector.

However, there are still some other sectors, such as energy, industry, transport, water and housing and communal services, agro-industrial complex and land use, preservation and reproduction of ecosystems. For example, the growth of the renewable energy sector has been one of the first priorities both for the public and commercial sector in Ukraine. However, the development of this type requires large amount of capital in-flows, mostly through external private financing. Green bonds are recognized globally as an effective instrument of the international financial market to attract funds for low carbon projects and assets. At the same time, many projects eligible for green bonds have important Sustainable Development Goals (SDG) impacts. In general, this section does not adequately address the rationale for introduction of green bond to Ukraine.

In addition, the Concept emphasizes importance of the experience in other countries and the alignment of government policy with international law as relevant legal acts have been developed, mechanisms for stimulating the development of the green bond market have been defined, and international investment standards have been established. Further, the Concept suggests that the guidelines defined by the Concept will enable the introduction and development of the green bond market. However, the Concept does not present any needs for developing such guidelines. Finally, the Concept presents the urgent needs of adopting this Concept due to: insufficient awareness of state authorities, insufficiently clear division of functions, low level of coordination of actions and institutional capacity of state authorities; and the need to improve the regulatory framework in this area. These problems are the institutional and capacity constraints and are not be appropriate to be used as a rationale for the introduction of green bonds.

Ways and methods of solving the problem

To achieve the goal of the Concept, it is necessary to ensure the implementation of comprehensive measures in the following directions:

- creation of prerequisites for the introduction of the green bond market;
- ensuring the attraction of financing for the implementation of the environmental project by issuing green bonds;
- promoting the development of the green bond market.

The prerequisites for the introduction of the green bond market under comprehensive measures in the Concept includes:

- establishment of taxonomy, in particular metrics of projects of environmental direction in accordance with international criteria and standards;
- introduction of national regulations and rules regarding disclosure of information by issuers of green bonds, reporting standards;
- establishment of the accreditation regime of external verifiers and appraisers of green bonds;
- the introduction of incentives for the development of the green bond market and the development, if necessary, of appropriate state target programs;
- preparing for the introduction of securitization and determining types of green bond collateral that take into account their specific features.

However, the Concept does not mention the green bond standard/principle that will be adopted by Ukraine. This is normally one of the important prerequisites for the introduction of the green bond market in any countries. Currently, there are two major types green bond standards/principles: EU GBS and ICMA GBP. The Concept does not indicate which standard/principle that Ukraine will follow in the near future.

Second, the Concept does not indicate the needs to establish the Ukraine Green Bond Standard/Principle, which will guide the introduction, issuance and circulation/trading of green bonds in the country.

Third, the Concept only includes the introduction of national regulations and rules regarding disclosure of information by issuers of green bonds, reporting standard. Nevertheless, the national regulations and rules should not only cover disclosure of information by issuers of green bonds and reporting standards, but also cover evaluating and selecting green projects, procedures for monitoring the use and management of funds, control procedures (Point 3 above), supervision by National Securities and Stock Market Commission (NSSMC), and incentives for GB issuance (Point 4 above). Further, the Concept addresses one of limitations in regulation for introduction of green bond in Ukraine. In fact, lack of legal and regulatory framework is one of the key issues for the introduction of green bond in Ukraine.

Fourth, although the creation of prerequisites for the introduction of the green bond market includes establishment of taxonomy, the Concept does not illustrate it in details. In fact, identify the need for development of Ukraine Taxonomy is an important task of the Concept.

Finally, it appears that Point 5 above (preparing for the introduction of securitization and determining types of green bond collateral that take into account their specific features) does not follow the international practice in green bond.

In the Concept, ensuring the attraction of financing for the implementation of environmental projects is carried out by:

- raising the awareness of interested parties;

- support for the preparation and implementation of experimental projects;
- promoting the creation of domestic investment demand for investments in green bonds;
- involvement of international development banks in green bonds of Ukraine;
- promoting the promotion of national green bond issuers to foreign capital markets;
- conducting external presentations on foreign capital markets.

However, Point 3 does not present the most important measure for promotion of investment: favourable tax rate or no tax for investors, which should be ensured through Regulation.

For Point 4 above, the involvement of international development banks as a purchaser of green bonds is not common in the international practice. In contrast, the World Bank is one of the important issuers of green bonds in the world. However, International development banks and public sector in Ukraine can provide explicit public credit enhancement to green bonds.

Point 6 above does not clearly present the preferential withholding tax rate to attract foreign investors into domestic bond markets.

In the Concept, promotion of the development of the green bond market is carried out by:

- removing barriers to the development and functioning of the secondary bond market;
- creation of a register of projects of national importance;
- introduction of a system of verification of environmental projects;
- establishment of cooperation with international financial organizations, foreign investment companies and donor funds;
- organizing and conducting training programs for participants and potential players;
- definition of the tasks of the central bodies of executive power.

Only Point 1, 4 and 5 are the promotion measures of the development of green bond market. Other points, in fact, are the components/procedures of green bond which should be ensured through green bond regulation.

Forecast of impact on key interests of interested parties

This section of the Concept presents the impacts on the interest of green bond stakeholders including citizens, financial and non-financial companies, investment and donor funds, international developments and institutional investors. It appears that this section is redundant and can be deleted.

Expected results

The implementation of the Concept will enable:

- create a multiplier for attracting financing for the implementation of environmental projects;
- contribute to the reduction of the consumption of fuel and energy resources in the national energy balance of the state, as well as to the reduction of greenhouse gas emissions;
- stimulate the development of the securities market in Ukraine using world experience and practice;
- raise awareness in the field of environmental and social risk management and environmental impact regulation;
- improve the investment attractiveness, business climate and competitiveness of the state;
- increase guarantees for investors investing in environmental projects;
- stimulate socio-economic development in Ukraine;
- contribute to the fulfillment of national strategic goals, as well as the international obligations undertaken by Ukraine.

The above expected results are appropriate. It would be better if this subsection focuses only on the results of national environmental impacts rather various impacts through issuance of green bond.

The volume of financial, material and technical, labor resources

During the preparation of the implementation of the measures specified in the Concept, the amount of necessary financial, material, technical and labor resources will be assessed and substantiated,

taking into account the possibilities of the state and local budgets and the availability of other sources not prohibited by law.

This section should present the constraints currently in Ukraine, including financial, technical and labour resources for the implementation of the Concept rather than the need to assess these resources.

IV Recommendations

The recommendations for the improvement of the Concept based on the review above are given below:

1. The Concept can be structured as follows:
 - Introduction/General Provision: background
 - Rationale for introduction of Green Bond in Ukraine: associated with national environmental strategy/objective and sector strategy particular in energy industry, energy efficiency, natural resources and transport.
 - Stages for Green Bond development: steps to reach final implementation of green bond in Ukraine
 - Institutional Arrangements: institutional reforms for better implementation of green bond
 - Legal and Regulatory Measures: new/updated laws and regulations for implementation of green bond
 - Other measures: including policies/strategies, initiatives, public awareness, training and other measures
 - Constrains: limitations currently in Ukraine
 2. The Concept should clearly present a need to establish the Ukraine Green Bond (GB) Standard/Principle, which should be aligned with EU GBS. The Ukraine GB Standard/Principle includes:
 - (1) Scope and Objective of the Ukraine Green Bond Standard/Principle
 - (2) Definition of Ukraine Green Bond
 - (3) Core Components of the Ukraine Green Bond Standard/Principle
 - (i) Green Projects
 - (ii) Green Bond Framework
 - (iii) Reporting
 - (iv) Verification
- For details, see Consultant Report on Green Bond Standards/Guidance in EU and Other Countries and Best Practices Suitable for Ukraine.²⁴
3. The Concept should clearly suggest a need to establish a completely new regulation on green bond that should be consistent with EU GB regulation. The new regulation covers: a set of regulatory and legal guidelines and procedures for Ukraine green bond market from the perspectives of:
 - (1) mechanisms for financing and re-financing green projects,
 - (2) evaluating and selecting green projects,
 - (3) procedures for monitoring the use and management of funds,
 - (4) reporting standards,
 - (5) control procedures,
 - (6) supervision by the National Securities and Stock Market Commission (NSSMC), and
 - (7) incentives for GB Issuance.

²⁴ Green Bond Standards/Guidance in EU and Other Countries and Best Practices Suitable for Ukraine, Consultant Report, July 2022

For details, see Consultant Report on Proposals on Regulatory and Legal Guidelines and Procedures for Ukraine Green Bonds Market.²⁵

4. The Concept should be consistent with Action Plan of Measures for the Implementation of the Concept of the Introduction of the Green Bond Market in Ukraine. As presented in Recommendation 1 above (new structure), the proposed green bond development, institutional arrangements, legal and regulatory measures and other measures should be consistent with the same sections in the Action Plan. If the structure of the Action Plan remains unchanged, institutional arrangements and other measures can be combined into organizational measures.
5. As the original purpose of Law of Ukraine dated June 19, 2020 No. 738-IX "On Amendments to Certain Legislative Acts of Ukraine Regarding the Simplification of Investment Attraction and the Introduction of New Financial Instruments" is to attract foreign investment, this Law might not be applicable to Ukraine GB in the long term. Ukraine needs to have a new law to guide the green bond. As Ukraine needs to develop a completely new Regulation, some principles in the law for green bonds may be incorporated in the new Regulation in the short term.
6. As taxonomy is a tool to help investors, companies, issuers and project promoters navigate the transition to a low-carbon, resilient and resource-efficient economy, the Concept should clearly initiate a detailed study and design of Ukraine taxonomy in its introduction of green bond in Ukraine. In particular, the Ukraine taxonomy should be designed around the key sectors (including energy, energy efficiency, transport and natural resources) with environmental benefits in Ukraine.

²⁵ Proposals on Regulatory and Legal Guidelines and Procedures for Ukraine Green Bonds Market, Consultant Report, August 2022

Appendix 3.1 Concept: Introduction and Development of the Green Bond Market

APPROVED

by order of the Cabinet of Ministers of Ukraine
dated February 23, 2022 No. 175

CONCEPT

Introduction and development of the green bond market in Ukraine (based on Google translation)

General Provisions

In accordance with the Law of Ukraine dated June 19, 2020 No. 738-IX "On Amendments to Certain Legislative Acts of Ukraine Regarding the Simplification of Investment Attraction and the Introduction of New Financial Instruments" a new type of financial instrument - green bonds - was introduced in Ukraine and rules were established for participants in the relevant market .

The legislation establishes that green bonds are bonds, a prospectus (decision on issue, and for state bonds of Ukraine - placement conditions) which provide for the use of the funds raised exclusively for financing the implementation of an environmental project or a separate stage of it. At the same time, the project of ecological direction is a project in the field of alternative energy, energy efficiency, minimization of generation, utilization and processing of waste, introduction of environmentally friendly transport, organic farming, preservation of flora and fauna, water and land resources, adaptation to climate change, another project aimed at protection of the natural environment, implementation of ecological standards, reduction of emissions of pollutants into the natural environment.

A problem that needs to be solved

The energy intensity of the national economy is two to three times higher than the average value of this indicator in European countries. Over the past 20 years, European countries have drastically reduced their consumption of energy resources. In Ukraine, the share of consumption of energy resources remains significant due to wear and tear of fixed assets, outdated equipment, losses in electric and heat networks. High energy costs lead to an excessive load on enterprises and reduce their competitiveness, and inefficient technologies cause significant emissions of CO₂ into the atmosphere.

For a long time, the economic development of the state was accompanied by a low priority of environmental protection issues and unbalanced exploitation of natural resources, which made it impossible to achieve balanced (sustainable) development. The main reasons for the emergence of the specified problem in the state sector of the economy are:

- predominance of resource- and energy-intensive industries and industries with a negative impact on the environment in the structure of the national economy;
- physical and moral wear and tear of fixed assets in all branches of the national economy;
- inefficient state management system in the field of environmental protection and use of natural resources;
- unsatisfactory control over compliance with environmental legislation;
- failure to take into account the consequences for the environment during the development of draft legislative and normative legal acts by executive authorities;
- insufficient financing of nature protection measures from the state and local budgets.

In the private sector of the economy, the main cause of this problem is the lack of financial resources for investments in ecological modernization of production, the impossibility of attracting long-term financial resources at an acceptable cost, the lack of non-budgetary financial instruments for financing the implementation of environmental projects.

The adoption of the Law of Ukraine dated June 19, 2020 No. 738-IX "On Amendments to Certain Legislative Acts of Ukraine on Simplifying Investment Attraction and Introducing New Financial Instruments" and establishing the legal basis for the issuance and circulation of green bonds in Ukraine is not a guarantee of the effective use of such financial instrument by all categories of issuers.

The experience of the countries of the world in the organization and development of the green bond market shows that their effective application is possible only in the case of the development and implementation of a single integrated state policy, harmonized with international law, which will take into account the leading world practices and the peculiarities of national conditions, in particular opportunities, needs and priorities. In the majority of countries, relevant legal acts have been developed, mechanisms for stimulating the development of the green bond market have been defined, and new international investment standards have been established.

The organization and development of the green bond market is a cross-sectoral task that covers not only issues of the stock market, securities and finance, but also energy, industry, transport, water and housing and communal services, agro-industrial complex and land use, preservation and reproduction of ecosystems. Politically and economically justified decisions on the introduction and development of the green bond market must be made for many sectors of the economy and be coordinated with the main market players. The governments of foreign countries adopt appropriate action plans, which are used as a reference point when developing strategies for organizing the relevant market and attracting financing for the implementation of environmental projects by issuing green bonds in various sectors of the economy.

The guidelines defined by the Concept will enable the introduction and development of the green bond market.

The urgency of adopting this Concept is caused by:

- insufficient awareness of state authorities with all aspects of the introduction and development of the green bond market;
- insufficiently clear division of functions, low level of coordination of actions and institutional capacity of state authorities regarding planning and implementation of actions in the specified area;
- the need to improve the regulatory framework in this area, to carry out appropriate organizational measures.

The purpose and terms of implementation of the Concept

The purpose of the Concept is to define directions and tasks for the introduction of the green bond market, which will make it possible to attract financing for the implementation of environmental projects, create prerequisites for the development of such a market in Ukraine, and increase its investment attractiveness.

Implementation of the Concept, taking into account the defined tasks, is carried out during 2022-2023.

Ways and methods of solving the problem

To achieve the goal of the Concept, it is necessary to ensure the implementation of comprehensive measures in the following directions:

- creation of prerequisites for the introduction of the green bond market;
- ensuring the attraction of financing for the implementation of the environmental project by issuing green bonds;
- promoting the development of the green bond market.

The creation of prerequisites for the introduction of the green bond market is carried out by:

- establishment of taxonomy, in particular metrics of projects of environmental direction in accordance with international criteria and standards;
- introduction of national regulations and rules regarding disclosure of information by issuers of green bonds, reporting standards;

- establishment of the accreditation regime of external verifiers and appraisers of green bonds;
- the introduction of incentives for the development of the green bond market and the development, if necessary, of appropriate state target programs;
- preparing for the introduction of securitization and determining types of green bond collateral that take into account their specific features.

Ensuring the attraction of financing for the implementation of environmental projects is carried out by:

- raising the awareness of interested parties regarding the introduction of the green bond market in Ukraine, attracting key players to the market;
- support for the preparation and implementation of experimental projects on the issuance of green bonds by various categories of issuers with the involvement of EU aid programs, foreign governments, international organizations and donor institutions;
- promoting the creation of domestic investment demand for investments in green bonds from various categories of potential investors, in particular attracting the public and local institutional investors;
- involvement of international development banks in cooperation on improving the credit quality of green bonds of Ukrainian issuers and investing in green bonds of Ukraine;
- promoting the promotion of national green bond issuers to foreign capital markets;
- conducting external presentations on foreign capital markets in order to support the attraction of international investors to invest in Ukrainian issues of sovereign and municipal green bonds.

Promotion of the development of the green bond market is carried out by:

- removing barriers to the development and functioning of the secondary bond market, in particular to increase the liquidity of green bonds on the stock market;
- creation of a register of projects of national importance, for the implementation of which sovereign green bonds may be issued;
- introduction of a system of verification of environmental projects in accordance with international practices;
- establishment of cooperation with international financial organizations, foreign investment companies and donor funds on attracting financing for the implementation of environmental projects;
- organizing and conducting training programs for participants and potential players of the green bond market;
- definition of the tasks of the central bodies of executive power, which will be involved in the implementation of the Concept, taking into account the specifics of the industry and the existing mechanisms of influence.

Forecast of impact on key interests of interested parties

The introduction and development of the green bond market will affect the key interests of such interested parties as citizens of Ukraine, subjects of economic activity (financial and non-financial companies, investment and donor funds, international development banks, institutional investors). Financing the implementation of environmental projects through the issuance of green bonds will have a positive effect on the quality of life of citizens in general, the improvement of the environment, and the spread of "green" technologies both in the short-term and in the long-term. The issuance of green bonds will make it possible to attract financing for the implementation of environmental projects and to stimulate the socio-economic development of the regions of Ukraine, which will positively affect the implementation of the tasks defined in the strategies for the development of territories and state bodies.

At the same time, economic entities that will issue green bonds can diversify sources of financing for the implementation of relevant projects and gain competitive advantages in attracting additional investment resources.

Expected results

Implementation of the Concept will enable:

- create a multiplier for attracting financing for the implementation of environmental projects;
- contribute to the reduction of the consumption of fuel and energy resources in the national energy balance of the state, as well as to the reduction of greenhouse gas emissions;
- stimulate the development of the securities market in Ukraine using world experience and practice;
- raise awareness in the field of environmental and social risk management and environmental impact regulation;
- improve the investment attractiveness, business climate and competitiveness of the state;
- increase guarantees for investors investing in environmental projects;
- stimulate socio-economic development in Ukraine;
- contribute to the fulfillment of national strategic goals, as well as the international obligations undertaken by Ukraine.

The volume of financial, material and technical, labor resources

During the preparation of the implementation of the measures specified in the Concept, the amount of necessary financial, material, technical and labor resources will be assessed and substantiated, taking into account the possibilities of the state and local budgets and the availability of other sources not prohibited by law.

Appendix 3.2 Legal and Regulatory Review of the Action Plan

(Deliverable 4: Legal and regulatory review of the Action Plan for the creation of the green bonds market (prepared by the Working Group on Green Finance)

1. Review of the Action Plan

The Action Plan of Measures for the Implementation of the Concept of the Introduction of the Green Bond Market in Ukraine (the Action Plan) is generally well prepared. It was divided by two sections: legislation development and organizational measures. However,

(1) The Action Plan does not incorporate the most important section of green bond development, particularly in some core components of green bonds.

(2) Among the 8 items in the original Action Plan, there are 6 items for amendments and 2 items for new laws or regulations under the section of legislation development. However, there is no a specialized regulation on green bonds in the section of legislation development.

(3) Under Item No.1: Preparation of the draft of the Law of Ukraine "On Amendments to the Law of Ukraine "On Securities and the Stock Market"" (regarding the definition of "green" bonds and features of the issuance of such bonds), column of responsible for implementation does not include the National Securities and Stock Market Commission (NSSMC), which is not appropriate.

(4) In the column of "responsible for implementation", "with consent", which appears in many items, is vague.

(5) For all items under legislation development, rationales or purposes for amendments/new development are not clearly defined under both sections particularly the section of legislation development.

(6) The Action Plan does not present the measures in steps with timeline in form of roadmap.

(7) Under Item No. 11, Annex 3, Facilitating the creation of "green" platforms for the selection of ecologically clean projects on the basis of relevant relevant ministries and departments, forming a register of projects of the national. What do "platforms" mean here?

(8) Under Item No. 12, Annex 3, Implementation on the basis of State Agency of Energy Efficiency and Energy Saving a technical office for examination and support environmentally friendly projects, with the involvement of programs assistance from the EU, foreign governments, international organizations and donor institutions. Why is the technical office located in the State Agency of energy Efficiency and Saving? The environmentally friendly projects can be in many other sectors.

(9) Under Item No. 13, Annex 3 (Facilitating the involvement of specialized institutions for conducting an independent external examination on compliance of green bond issues international standards) is vague. What is the actual measure?

(10) Item No. 15, Annex 3 (Working together with the National Bank possibilities of applying preferential requirements to capital for banking operations with greens bonds) is not clear. National Bank is a central bank in Ukraine. How can it apply a preferential requirements to capital for banking operations with green bonds. In addition, during the implementation of green bond, commercial banks play limited roles.

(11) Item No. 17, Annex 3 (Establishing cooperation with international financial organizations, foreign investment companies and donor companies funds for attracting "green" financing to Ukraine) is ambiguous. International financial organisations and donor companies funds are not the crucial organisations to attract green financing.

(12) Item No. 18, Annex 3 (Involvement of international development banks in investing in green bonds of Ukraine and increasing the credit quality of green bonds) is vague. The involvement of international development banks as a purchaser of green bonds is not common in the international practice. However, International development banks and public sector in Ukraine can provide explicit public credit enhancement to green bonds.

(13) No consistent use of a terminology: Ministry of Energy and Energy of the State Energy Efficiency, in Item No. 1, 2, 4, 5, 7 and 8, and State Agency of Energy Efficiency and Energy Saving in other items.

2. Recommendations for the Action Plan

The recommendations for the Action Plan are given below:

(1) Add one section called "green bond development"

(2) Add two components under Green Bond Development

1) Draft Ukraine Green Bond Standard/Principle

2) Development of Ukraine Taxonomy including related studies

(3) Add Regulation under the section of legislation development. The Regulation includes two crucial components:

a) Regulatory and Legal Guidelines and Procedures for Ukraine Green Bonds Market (the Regulation)

b) Annexes related to the Regulation:

- Information/fact Sheet
- Allocation Report
- Impact Report
- Pre-issuance and Post-Issuance Reviews

- (4) Add NSSMC to responsible for implementation to Item No. 1: Preparation of the draft of the Law of Ukraine "On Amendments to the Law of Ukraine "On Securities and the Stock Market"" (regarding the definition of "green" bonds and features of the issuance of such bonds), under the section of legislation development.
- (5) In the column of "responsible for implementation", delete all "with consent".
- (6) For all items under legislation development, provide rationales or purposes for amendments/new development. As the English version of laws or regulations are not available, this point is not updated in Annex 4.
- (7) The Action Plan must present the measures in all sections in stage with timeline. As the Consultant cannot confirm whether the Action Plan has been implemented based on the information available, the timeline is not updated in Annex 4.
- (8) Under Item No. 11, Annex 3, the selection of ecologically clean projects should be ensured through a regulation and external reviewer which should be defined in the specialised Regulation in green bond proposed. Thus, original Item No. 11 in Annex 3 should be deleted.
- (9) Under Item No. 12, Annex 3, the technical office should be situated at NSSMC or Ministry of Economy or Ministry of Finance (if the translation is correct), which is responsible for the regulation of green bond in Ukraine.
- (10) Under Item No. 13, Annex 3, the involvement of specialized institutions for conducting an independent external examination on compliance of green bond issues should be defined in the independent Regulation in green bond proposed by the Consultant. Thus, original Item No. 13 should be deleted.
- (11) Original Item No. 15 in Annex 3 should be deleted as National Bank of Ukraine is a regulator and commercial banks are not the major players in the green bond market.
- (12) Under Item No. 17 in Annex 3, as a preferential withholding tax rate must be established to attract foreign investors into domestic bond markets and defined in the specialised Regulation in green bond proposed. Thus, original Item No. 17 in Annex 3 should be deleted.
- (13) Item No. 18 in Annex 3 should be updated as: Encouragement of entities such as development banks, green banks, Ministry of Finance, the Green Climate fund and other similar entities to provide credit enhancement for green bonds in Ukraine.
- (14) Update the terminologies for consistency such as the State Energy Efficiency.

The updated Action Plan is presented in Annex 4.

Appendix 3.3 Original Action Plan for the Implementation of the Concept

PLAN OF MEASURES FOR THE IMPLEMENTATION OF THE CONCEPT OF THE INTRODUCTION OF THE GREEN BOND MARKET IN UKRAINE(based on Google translation)

#	Name of the event	Implementation period	Responsible for implementation
Legislation Development			
1	Preparation of the draft of the Law of Ukraine "On Amendments to the Law of Ukraine "On Securities and the Stock Market"" (regarding the definition of "green" bonds and features of the issuance of such bonds)	2020	Ministry of Energy and Energy of the State Energy Efficiency Ministry of National Energy Efficiency of Ukraine (with consent) Ministry of Finance Ministry of Regions Ministry of Economy Antimonopoly Committee National Bank (with consent)
2	Preparation of the draft resolution of the Cabinet of Ministers of Ukraine on amendments to the Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Procedure for Local Borrowing" dated February 16, 2011 No. 110 in terms of the implementation of the principles of green bonds in accordance with international	2020	Ministry of Energy and Energy State Energy Efficiency Ministry of Finance NKCPFR (with consent) National Bank (with consent) Ministry of Regions
3	Draft preparation of the Decision of the National Securities and Stock Market Commission (NKCPFR) on amending the Decision of the NKCPFR "On approval of the Regulation on the procedure for the issuance of bonds of enterprises and their circulation" dated June 21, 2018 No. 425 and the Decision of the NKCPFR "On the approval of the Regulation on the procedure for the issuance of bonds of domestic local loans and their circulation » dated April 29, 2014 No. 578 regarding the implementation of the principles of green bonds that meet international standards	2020	NKCPFR (with consent) Ministry of Energy, State Energy Efficiency, Ministry of Finance, Ministry of Regions, Ministry of Economy
4	Preparation of the draft law of Ukraine on amendments to the Laws of Ukraine "On Joint Investment Institutions" dated July 5, 2012 and "On Non-State Pension Insurance" dated July 9, 2003 regarding the recognition of green bonds as a permitted asset of joint investment institutions and non-state pension funds	2020	Ministry of Energy and Energy of the State Energy Efficiency NKCPFR (with consent) Ministry of Finance Ministry of Economy Antimonopoly Committee Pension Fund
5	Preparation of a draft law of Ukraine on amendments to the Tax Code of Ukraine dated December 2, 2010 in the part of canceling	2020	Ministry of Energy and Energy of the State Energy Efficiency Ministry of Finance DPS NKCPFR (with consent)

	income tax in the form of interest (discount) received by the owner of green bonds of domestic state		
6	Preparation of the draft resolution of the Cabinet of Ministers of Ukraine "On the approval of the Procedure for the selection and support of environmentally friendly projects financed from the state and local budgets", which determines the procedure for the examination and selection of environmentally friendly projects, financing and refinancing of environmentally friendly projects, monitoring the use and management of funds , involved in the financing and refinancing of environmentally friendly projects, the procedure for control and reporting procedures regarding the implementation of environmentally friendly projects, the procedure for forming a register of environmentally friendly investment projects of national importance, under which sovereign green bonds can be issued	2021	Ministry of Energy, State Energy Efficiency, Ministry of Finance, SFS, Ministry of Infrastructure, Ministry of Regions, Ministry of Economy, NKCPFR (with consent) Antimonopoly Committee
7	Development of legislation on securitization and covered bonds in cooperation with the National Securities and Exchange Commission of Ukraine, which takes into account the specifics of green bonds, removes barriers to the development and functioning of the secondary bond market, increases the liquidity of financial instruments on	2021	NKCPFR (with the consent) of the Ministry of Energy and Energy of the State Energy Efficiency National Bank (with the consent of the Ministry of Economy)
8	Development of government targeted programs to stimulate the green bond market, including the distribution of funding raised from the issuance of sovereign green bonds, as well as providing issuing municipalities with compensation for interest payments to owners of green bonds or compensation for the discount on such bonds	2021	Ministry of Energy and Energy of the State Energy Efficiency Ministry of Finance Ministry of Regions Council of Ministers of the Autonomous Republic of Crimea, local state administrations, local self-government bodies
Organizational measures			
9	Preparation and organization of pilot projects for the issuance of green bonds by various categories of issuers with the involvement of EU aid programs, foreign governments, international organizations and donor institutions 2020 is the year	2020	Ministry of Energy, State Energy Efficiency, Ministry of Finance, Ministry of Regions, Ministry of Economy, Ministry of Infrastructure, Council of Ministers of the Autonomous Republic of Crimea, local state

			administrations, local self-government bodies
10	Conducting information campaigns to raise the awareness of interested parties regarding the introduction of the green bond market in Ukraine	2020	Ministry of Energy, State Energy Efficiency, Ministry of Finance, Ministry of Regions, Ministry of Economy, Ministry of Infrastructure, Council of Ministers of the Autonomous Republic of Crimea, local state administrations, local self-government bodies
11	Facilitating the creation of "green" platforms for the selection of ecologically clean projects on the basis of relevant ministries and departments, forming a register of projects of the national	2020	Ministry of Energy, State Energy Efficiency, Ministry of Finance, Ministry of Regions, Ministry of Economy, Ministry of Infrastructure, Council of Ministers of the Autonomous Republic of Crimea, local state administrations, local self-government bodies
12	Implementation on the basis of State Agency of Energy Efficiency and Energy Saving a technical office for examination and support environmentally friendly projects, with the involvement of programs assistance from the EU, foreign governments, international organizations and donor institutions	2021	Ministry of Energy State Energy Efficiency Ministry of Economy Ministry of Regions Ministry of Infrastructure
13	Facilitating the involvement of specialized institutions for conducting an independent external examination on compliance of green bond issues international standards	2021	Minekoenergo State Energy Efficiency NCCPFR (with consent) Ministry of Finance Ministry of Economy Ministry of Regions Ministry of Infrastructure
14	Facilitating the creation of "green" platforms on the base stock exchanges of Ukraine for listing green bonds	2021	Minekoenergo State Energy Efficiency NCCPFR (with consent) National Bank (by agreement) Ministry of Finance
15	Working together with the National Bank possibilities of applying preferential requirements to capital for banking operations with greens bonds	2021	Minekoenergo State Energy Efficiency National Bank (by agreement) NCCPFR (with consent)
16	Promotion of attraction of "green" financing in Ukraine through the promotion of national issuers green bonds to foreign capital markets, conducting appropriate field presentations issues (road shows) on foreign capital markets regarding support for the attraction of international investors to investing in Ukrainian issues	2022	Ministry of Energy State Energy Efficiency Ministry of Finance Ministry of Regions Ministry of Economy Ministry of Infrastructure Council of Ministers of the Autonomous Republic Crimea, local state administrations, local governments

17	Establishing cooperation with international financial organizations, foreign investment companies and donor companies funds for attracting "green" financing to Ukraine	2022	Minekoenergo State Energy Efficiency Ministry of Finance Ministry of Regions Ministry of Economy Ministry of Infrastructure
18	Involvement of international development banks in investing in green bonds of Ukraine and increasing the credit quality of green bonds	2022	Minekoenergo State Energy Efficiency Ministry of Finance

Appendix 3.4 Updated Action Plan for the Implementation of the Concept

UPDATED PLAN OF MEASURES FOR THE IMPLEMENTATION OF THE CONCEPT OF THE INTRODUCTION OF THE GREEN BOND MARKET IN UKRAINE (based on Google translation)

#	Name of the event	Implementation period	Responsible for implementation
Legislation Development			
1	Preparation of the draft of the Law of Ukraine "On Amendments to the Law of Ukraine "On Securities and the Stock Market"" (regarding the definition of "green" bonds and features of the issuance of such bonds)	2020	Ministry of Energy the State Energy Efficiency Ministry of National Energy Efficiency of Ukraine Ministry of Finance Ministry of Regions Ministry of Economy Antimonopoly Committee National Bank NSSMC
2	Preparation of the draft resolution of the Cabinet of Ministers of Ukraine on amendments to the Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Procedure for Local Borrowing" dated February 16, 2011 No. 110 in terms of the implementation of the principles of green bonds in accordance with international	2020	Ministry of Energy State Energy Efficiency Ministry of Finance NSSMC National Bank Ministry of Regions
3	Draft preparation of the Decision of the National Securities and Stock Market Commission (NSSMC) on amending the Decision of the NSSMC "On approval of the Regulation on the procedure for the issuance of bonds of enterprises and their circulation" dated June 21, 2018 No. 425 and the Decision of the NSSMC "On the approval of the Regulation on the procedure for the issuance of bonds of domestic local loans and their circulation » dated April 29, 2014 No. 578 regarding the implementation of the principles of green bonds that meet international standards	2020	NSSMC Ministry of Energy State Energy Efficiency Ministry of Finance Ministry of Regions Ministry of Economy
4	Preparation of the draft law of Ukraine on amendments to the Laws of Ukraine "On Joint Investment Institutions" dated July 5, 2012 and "On Non-State Pension Insurance" dated July 9, 2003 regarding the recognition of green bonds as a permitted asset of joint investment institutions and non-state pension funds	2020	Ministry of Energy State Energy Efficiency NSSMC Ministry of Finance Ministry of Economy Antimonopoly Committee Pension Fund
5	Preparation of a draft law of Ukraine on amendments to the Tax Code of Ukraine dated December 2, 2010 in the part of canceling	2020	Ministry of Energy State Energy Efficiency Ministry of Finance DPS

	income tax in the form of interest (discount) received by the owner of green bonds of domestic state		NSSMC
6	Preparation of the draft resolution of the Cabinet of Ministers of Ukraine "On the approval of the Procedure for the selection and support of environmentally friendly projects financed from the state and local budgets", which determines the procedure for the examination and selection of environmentally friendly projects, financing and refinancing of environmentally friendly projects, monitoring the use and management of funds , involved in the financing and refinancing of environmentally friendly projects, the procedure for control and reporting procedures regarding the implementation of environmentally friendly projects, the procedure for forming a register of environmentally friendly investment projects of national importance, under which sovereign green bonds can be issued	2021	Ministry of Energy State Energy Efficiency Ministry of Finance SFS Ministry of Infrastructure Ministry of Regions Ministry of Economy NSSMC Antimonopoly Committee
7	Development of legislation on securitization and covered bonds in cooperation with the National Securities and Exchange Commission of Ukraine, which takes into account the specifics of green bonds, removes barriers to the development and functioning of the secondary bond market, increases the liquidity of financial instruments on	2021	NSSMC Ministry of Energy State Energy Efficiency National Bank Ministry of Economy
8	Development of government targeted programs to stimulate the green bond market, including the distribution of funding raised from the issuance of sovereign green bonds, as well as providing issuing municipalities with compensation for interest payments to owners of green bonds or compensation for the discount on such bonds	2021	Ministry of Energy State Energy Efficiency Ministry of Finance Ministry of Regions Council Ministers of the Autonomous Republic of Crimea, Council of Ministers of the Autonomous Republic of Crimea, local state administrations, local self-government bodies
9	Draft Regulatory and Legal Guidelines and Procedures for Ukraine Green Bonds Market	2022/2023	NSSMC Ministry of Finance Ministry of Economy
Organizational measures			
10	Preparation and organization of pilot projects for the issuance of green bonds by various categories of issuers with the involvement of EU aid programs, foreign	2020	Ministry of Energy State Energy Efficiency Ministry of Finance Ministry of Regions Ministry of Economy

	governments, international organizations and donor institutions 2020 is the year		Ministry of Infrastructure Council of Ministers of the Autonomous Republic of Crimea, local state administrations, local self-government bodies
11	Conducting information campaigns to raise the awareness of interested parties regarding the introduction of the green bond market in Ukraine	2020	Ministry of Energy State Energy Efficiency Ministry of Finance Ministry of Regions Ministry of Economy Ministry of Infrastructure Council of Ministers of the Autonomous Republic of Crimea, local state administrations, local self-government bodies
12	Establishment of a technical office in NSSMC or Ministry of Economy or Ministry of Finance for examination and support environmentally friendly projects, with the involvement of programs assistance from the EU, foreign governments, international organizations and donor institutions	2021	Ministry of Energy State Energy Efficiency Ministry of Economy Ministry of Regions Ministry of Infrastructure
13	Facilitating the creation of "green" platforms on the base stock exchanges of Ukraine for listing green bonds	2021	Minekoenergo State Energy Efficiency NCCPFR (with consent) National Bank (by agreement) Ministry of Finance
14	Promotion of attraction of "green" financing in Ukraine through the promotion of national issuers green bonds to foreign capital markets, conducting appropriate field presentations issues (road shows) on foreign capital markets regarding support for the attraction of international investors to investing in Ukrainian issues	2022	Ministry of Energy State Energy Efficiency Ministry of Finance Ministry of Regions Ministry of Economy Ministry of Infrastructure Council of Ministers of the Autonomous Republic of Crimea, local state administrations, local governments
15	Encouragement of entities such as development banks, green banks, Ministry of Finance, the Green Climate fund and other similar entities to provide credit enhancement for green bonds in Ukraine.	2022	Minekoenergo State Energy Efficiency Ministry of Finance
Green Bond Development			
16	Draft Ukraine Green Bond Standard/Principle	2022/2023	NSSMC Ministry of Finance Ministry of Economy
17	Draft Ukraine Taxonomy	2022/2023	NSSMC Ministry of Finance Ministry of Ecology and Natural Resources Ministry of Energy State Energy Efficiency

Part 5 Estimations of the Potential Volumes of the Green Bonds Market in Ukraine

(Deliverable 5)

Executive Summary

This report provides the objective of this report: to estimate the potential volumes of the green bond market in Ukraine based on the current issuance and cumulative issuance of the green bonds, and their relationships with economic variables.

And then, this report presents the volumes of the green bond market in the world, EMDEs, and regions under EMDEs.

This report also analyses the determinants of the average size of an issuance and the volumes of the green bonds, particularly from both supply and demand perspectives.

Further, this report estimates the volumes of the green bond market in Ukraine based on their relationships with current volumes and economic variables.

Finally, this report suggests recommendations to expand the green bond market in Ukraine from both supply and demand perspectives.

I Introduction

The TOR stipulates that the consultant should submit a series of deliverables within the framework of the mission. The completion of this report marks the fifth of 5 reporting requirements set out in the TOR²⁶:

- Deliverable 1: Written analysis of green bond standards/guidance developed in EU and other countries; identification of the best practices suitable for Ukraine
- Deliverable 2: Development of the set of recommendations for the necessary legal and regulatory changes to introduce Green Bonds Standard in Ukraine in a form of written report
- Deliverable 3: Legal and regulatory review of the Green Bond Market Concept, prepared by the Working Group on Green Finance in a form of analysis papers.
- Deliverable 4: Legal and regulatory review of the Action Plan for the creation of the green bonds market (prepared by the Working Group on Green Finance).
- Deliverable 5: Estimations of the potential volumes of the green bonds market in Ukraine. Two presentations on study findings to the stakeholders in Ukraine.

Green bonds have attracted increasing attention from both issuers and investors over the past decade as a key tool to finance the transition towards a low-carbon economy. However, the size of the green bond market remains small as compared to the overall traditional bond market.

The objective of this report is to estimate the potential volumes of the green bonds market in Ukraine based on the current issuance and cumulative issuance of the green bonds, and their relationships with the economic variables.

II Volumes of the Green Bonds Market

2.1 Volumes of the Global Green Bond Market

Green bonds are utilised to finance the green projects such as renewable energy, clean transportation, long-term water/waste water management and other projects with environmental benefits.

Government agencies, non-financial corporates, financial institutions, sovereign, development banks, local government, and other sectors are the major stakeholders in the green bond market.

Green bonds can be classified in accordance with issuer kinds, issuing currency, issue deal size, and other factors.

Europe represents the maximum proportion in the global green bond market in 2021. Asia-Pacific is the fastest-growing regional market.

Based on Global Green Bond Market Report 2022 produced by Research and Markets, the world largest market research store, the global green bond market was valued at \$433.30 Billion in 2021.²⁷

2.2 Volumes of the Green Bond Market in the EMDEs

IFC and Amundi, a leading European asset manager, released their Emerging Market Green Bonds Report 2021 on 9 June 2022. The report presents a recover in issuance of green bonds in emerging markets and developing economies (EMDEs) in 2021 due to increasing demand from

²⁶ TOR, Supporting Green Recovery in Ukraine

²⁷ Source: Global Green Bond Market Report 2022, Research and Markets, March 2022

both domestic and international investors as well as expanded issuance by new and existing issuers.

In spite of ongoing uncertainty associated with the pandemic and dislocations in many countries, the global market for green bonds grew faster than expected in 2021. Issuance of green bonds in EMDES more than doubled in 2021 to a record US\$95 billion from \$41 billion in 2020, and \$53 billion in 2019. The total emerging market issuance of these bonds amounted to US\$159 billion after including US\$64 billion of social, sustainability, and sustainability-linked bonds in 2021, almost triple the volume in 2020.²⁸

China was the largest issuer with issuance of US\$59 billion in 2021, accounting for 63 percent of the total, followed by India, Chile, the Czech Republic, Poland, and Brazil. EMDEs' issuance other than China experienced rapid growth, up by 58 percent to US\$35.2 billion in 2021.²⁹

Significant investment is required for EMDEs to meet development goals and transition to low-carbon economies. Green bonds and other new financial instruments for environmental projects are becoming an increasingly significant source of financing for many EMDEs. It is projected that annual issuance in the green bonds in EMDEs will reach US\$150 billion by 2023, with Chinese issuers potentially contributing more than half the total based on Emerging Market Green Bonds Report 2021.

Although rising interest rates had the impact on the total recovers in the global green bond market, emerging market green bonds outperformed the broader emerging market bond index by 77 basis points. In addition, secondary market data suggested that the average “green premium” for emerging market issuers was about 3.4 basis points in 2021.

The proceeds from green bonds are typically allocated to specific projects that would achieve environmental objectives. Cumulatively, the largest proportion of the use of proceeds has been allocated to renewable energy, representing 45 percent in 2021.

In addition to green bonds, the issuance of other types of bonds in EMDEs whose proceeds are designated to specific social and sustainability projects has been increasing for last few years.

Annex 1 presents the volumes of emerging market green bond issuance cumulative issuance, 2012-21.

2.3 Volumes of the Green Bond Market by Region under the EMDEs

Table 1 presents the cumulative issuance of the EMDEs by region. East Asia and the Pacific, was the leading issuer of the green bond in the EDMs, representing 72.5 percent of the cumulative issuance, followed by Latin America and the Caribbean (10.3%), Europe and Central Asia (8.9%), South Asia (5.7%), Middle East and North Africa (1.6%) and Sub-Saharan Africa (1%).

Table 1: Emerging Market Green Bond Issuance 2012-2021

Region	Number of countries	Number of issuers	Volume (US\$ billion)	%
East Asia and the Pacific (EAP)	7	344	234.6	72.5
Europe and Central Asia (ECA)	16	64	28.9	8.9
Latin America and the Caribbean (LAC)	13	95	33.4	10.3
Middle East and North Africa (MENA)	5	10	5.1	1.6
South Asia (SA)	3	31	18.3	5.7
Sub-Saharan Africa (SSA)	6	18	3.1	1.0

²⁸ Source: Emerging Market Green Bonds Report 2021, Research and Markets, 2022

²⁹ Source: Emerging Market Green Bonds Report 2021, Research and Markets, 2022

Total	50	562	323.4	100
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Note: EMDE = emerging market and developing economy; Regions are based on World Bank definitions.
Source: IFC, Bloomberg, Environmental Finance, Climate Bonds Initiative; from Emerging Market Green Bonds Report 2021, June 2022.

III Determinants of Volumes of Green Bond Market

3.1 Key Sectors of Green Bonds in Ukraine

Key sectors represent the potential sources of supply of green bonds. The potential sectors for the development of projects financed by Green Bonds in Ukraine include natural resources, transport sector, energy industry, and energy efficiency.³⁰

1. Natural resources

Agriculture represents approximately 10% of national GDP and employs 25% of labour force in Ukraine. Based on 2020 Strategy, the Ministry of Agrarian Policy and Food of Ukraine intends to improve the competitiveness of Ukraine's agrarian business. Climate-resilient development contributes to reduction of greenhouse gas (GHG) emissions will require integrated approaches and substantial, long-term investment in agriculture, fisheries, and forestry.

2. Transport sector

Ukraine has a great potential in transport sector because of its geographical position. Currently, the Ukrainian transit service cannot meet international environmental requirements. As the result, Ukrainian railway have to cover emissions at their own expenses. Based on Roadmap for Ukraine, Ukrainian railway monopoly (Ukrzaliznytsia) has lost 70.5 million tons of annual international transit.

3. Energy industry

The proportion of renewable energy in the overall energy balance is very low in Ukraine. Based on the National Renewable Energy Action Plan (NREAP), Ukraine intends to increase the share to 17.7% by 2030. For realizing the goals established by the NREAP, the total investment in renewables will amount to USD 5.0 billion per year on average until 2030.

4. Energy efficiency

The biggest issue of the energy sector in Ukraine is inefficient use of energy resources for heating, losing 60 percent of energy or \$3 billion per year. This was normally financed by the State budget through issuing external debt.

In general, the development of the renewable energy and energy efficiency sectors in Ukraine has become one of the first priorities for Ukraine. Nevertheless, this type of development needs substantial funding, mostly through external private financing. Green bond is considered to be an effective instrument of the international financial market to finance low carbon projects and assets. In addition, many projects eligible for green bonds have important implications for Sustainable Development Goals (SDG).

3.2 Determinants of the Average Size for an Issue of the Green Bonds Market in Ukraine

There are two major types of green bond market participants: issuers and investors. Issuers expect the market to price the green bond well above conventional bonds, while investors sometimes consider green bonds as philanthropy.

³⁰ Roadmap for Ukraine: Green bond guidelines for the creation of new market, 2017.

From demand side, in order to be competitive in the market, the average bond size for an issue is excessively large compared with average project sizes. This issue comes from the concentrated demand for fixed-income assets by the institutional investors.

Nevertheless, from supply side, the potential projects of SMEs and even large firms do not reach the level required for a successful issue in the primary market.

In contrast, there is great potential for green infrastructure projects, which are still currently underdeveloped in Ukraine. The projects' size would be consistent with the average-sized issues in the country's primary market. In that case, significant progress in the green bond market development would be to use these instruments to finance water and sewer systems, electricity grids, public transportation systems, roads, harbours, railways and other infrastructure projects.

Banks are natural players in the green bond market. By issuing green bonds, banks can create green credit lines that meet the financing needs of smaller firms so as to develop environmentally impactful projects.

3.3 Determinants of Potential Volumes of the Green Bonds Market in Ukraine

1. Factors on the Supply Side

From supply side, the factors include:

(1) Issuance Costs for Firms

Based on the Green Bond Framework, SMEs need to undertake substantial costs related to technical aspects at the issuance level, such as credit rating, external reviews, and subscription in the stock exchanges, deposits, and regulators. The perception of high risk for SMEs increase the costs of entering the capital markets. The poor corporate governance of SMEs, which is common for many of these firms in the country, can worsen the condition.

(2) Financial Market Condition

A high interest rate will increase the financing costs and reduce the number of new fixed-income issues for all types of bonds including green bonds in Ukraine. In turn, firms will rely on the banking system to finance their operations. Obviously, funding through capital markets has serious competition with the banking sector.

(3) Stakeholders' Motivation to Join the Green Bond Market

Issuing a green bond can be considered by shareholders as a signal of corporate social responsibility. The firms are willing to issue green bonds due to the pressure from their shareholders.

(4) Lack of Standards for Green Bonds

Ukraine still lacks clear standards of green bonds which are needed, especially in taxonomy, certification, and regulation.

(5) Unclear Premium

Some studies reveal significant price differences between green and similar ordinary bonds or a moderate green bond premium. However, many firms do not realise that there is a premium from issuing the green bonds.

(6) Lack of Credibility and Size Requirements

The new green bond market does not provide enough data for investors to make an educated investment decision. In this case, investors are reluctant to purchase the green bonds. In addition, most companies have a limited amount of green assets. In practice, the GBS requires an issuer to use almost 100% of the bond's proceeds to finance a specific green project. However, for a green bond to make financial sense for investors, and ensure liquidity and index inclusion, the firm must meet the size requirement. However, many firms cannot meet this requirement.

(7) Unawareness of the Benefits

Awareness will have an impact on the issuance. There exists a lack of awareness regarding the benefits of green bonds. This can still represent a barrier in the long run as issuing a green bond requires additional efforts in terms of monitoring, disclosure, and impact reporting to align with the GBS.

(8) Risks

Issuing a green bond provides a window of transparency on the overall profile of the issuer and its sustainable strategy. However, some issuers are not willing to allow for a closer look at their operations and sustainability performance. The lack of visibility on the use of the proceeds is another risk provided that no existing GBS or GBP requires a direct and restricted allocation. Thus, there will be risk of misallocation.

2. Factors on the Demand Side

From demand side, the factors include:

(1) Transparency

Provided the nature of green bonds, transparency is crucial for investors and other stakeholders. Nevertheless, there are still no unique standard for establishing either Green Bond Framework or subsequent reports in Ukraine. Thus, it is difficult to assess the actual impacts of the green projects and determine whether green bond is following the right direction.

(2) Environmental Awareness

The rising environmental awareness among investors contributes to an increased demand for green bonds and to oversubscriptions, thus enabling the funding of eco-friendly projects in a cheaper way.

(3) Investment Instruments

Investment opportunities include individual green bonds as well as green bond mutual funds or ETFs. However, as Ukraine's capital market is not well developed, some investment instruments may not be available for investors.

(4) Institutional Investors

The types of investors have broadened since the beginning of the green bond market. The investors include impact investors, pension funds, insurance companies and asset managers, corporate and bank treasuries, as well as retail investors.

Investment funds can have a meaningful involvement in the green bond market. Investment funds have focused on financing of green projects such as hotels with given ratings, renewable energy, infrastructure, and the electricity sector, which have a substantial social impact given the country's context.

(5) Lack of Standardisation

Lack of a common standard with no unique definition among investors of what green investing entails is a significant barrier to the demand for green bond. Furthermore, the various definitions of green investments put investors at risk. One definition of green bond for some investors may not be acceptable to other investors in other countries.

IV Estimations of the Potential Volumes of the Green Bonds

Market in Ukraine

4.1 Current Volumes of the Green Bond Market in Ukraine

In the Europe and Central Asia region, the Czech Republic was the largest issuer with US\$4 billion issuance in 2021. The proceeds were used mainly for property development. After a year of no green bond issuance, Poland issued US\$2.7 billion of green bonds and another US\$254 million of

sustainability-linked bonds (SLBs) in 2021. Serbia issued its first green bond in the country: green sovereign Eurobond. The Slovak Republic placed its first green bond in 2021. Green bonds in Georgia, Hungary, Latvia, Lithuania, Romania, the Russian Federation, Turkey, and Ukraine represent the region's increasing share of EMDE issuance.

In 2021, Uzbekistan issued a sovereign sustainability bond in two tranches with US\$870 million, which were used for education, water management, health, green transportation and energy, pollution control, and management of natural resources. Another US\$5.5 billion of sustainability bonds were placed in Latvia, Slovenia, and Turkey.

As Ukraine and Poland are similar in geography and socio-economic conditions, the green bond data for Ukraine in 2021 is derived based on the relationship between the green bond data in 2012-2021 and in 2021 for Poland.

4.2 Forecasted Volumes of the Green Bond Market in Ukraine

There are two major methods to forecast the volumes of the green bond market in Ukraine: econometric model and subjective judgement. The econometric forecasting model is a tool that reveals the relationships among economic variables to forecast future developments. The forecast equations are then estimated by using the available historical data, mainly aggregate time series. However, the econometric model is not appropriate to be used for this particular case. First, the historical relationships among economic variables have no implications for future development as Ukraine is currently undergoing a war. Second, the historical time series data for the independent variable is not available.

Thus, subjective judgement is used for this volume forecast. The subjective judgement is based on the relationship between volume of green bond and GDP as Annex 1 clearly presents the close connection between accumulative volumes of green bonds and GDP. For example, as China is the second largest economy or first largest economy in EMDEs, China is the largest issuer with issuance of US\$59 billion in 2021, accounting for 63 percent of the total.

As shown in Table 2, GDP in Poland is expected to reach \$660 billion and \$695 billion by the end of 2022 and 2023 respectively based on Trading Economics global macro models and analysts' expectations.³¹ As the green bond data for 2012-2021 and 2021 is given, the volumes of green bond market for Poland in 2022 and 2023 are forecasted based on their relationship with GDP in 2021.

Similar to estimation of volumes for Poland above, the volumes of green bond market for Ukraine in 2022 and 2023 are forecasted based on their relationship with GDP in 2021.

Table 2: Forecasted Volumes of the GB Market in Ukraine

			2012- 2021	2021	2022	2023
Poland	GDP	US\$ billion		674.05	660	695
	Green bond	US\$ million	7374	2700	2644	2784
Ukraine	GDP	US\$ billion		200.09	100	80
	Green bond	US\$ million	1183	433	216	173

Sources: GDP data is from Trading Economics. Green bond data for 2012-2021 is from Emerging Market Green Bonds Report 2021, June 2022. Green bond data for Poland in 2021 is from Emerging Market Green Bonds Report 2021, June 2022.

³¹ Trading Economics, <https://tradingeconomics.com/poland/gdp>

V Recommendations to Expand the GB Market in Ukraine

5.1 Supply Side

1. Incentive Measures

The incentive measures include:

- Reduce the subscription cost for green bond issuance;
- Establish a regulation intended to reduce formalities and to facilitate procedures for the development of green projects in Ukraine in order to increase the number of projects financed through capital markets;
- Establish a rating agency intended to evaluate the greenness of issuers and issues and grant a substantial discount for green ratings; and
- Provide a discount for small-sized issues in the green bond market.

2. Public Guarantees

- Provide public guarantee. For Ukraine, where green bonds are less developed, a constructive use of guarantees and de-risking measures are much needed tools to expand the green bond market. The key barriers in Ukraine are a lack of appropriate institutional arrangements for green bond management, the small size of issuances, and high transaction costs. One solution to this challenge is to use the public guarantee.

3. Market Traction

- Promote sovereign green bond issuance as sovereign issuers have a significant potential to generate market traction.

4. Potential Sectors

- Use of proceeds for green infrastructure projects. Infrastructure projects are more appropriate for the issue sizes in bond markets. There is a great potential in this area, considering the lack of development in infrastructure in Ukraine for last decades.
- Use of proceeds for energy projects. The change in the energy matrix in Ukraine is an important opportunity to receive finance through capital markets.

5. Adopt High Standards of Disclosure and Reporting

- Encourage the issuers to disclose and report information on their revenue from green activities and green assets.
- Encourage issuers to disclose the use of the underlying fund. Disclosure on the “use of proceeds” of all bonds issued would offer guarantee to investors that their investments are aligned with long-term environmental objectives.
- Encourage issuers to report the environmental impact of green bonds. Reporting should be standardized, thereby strengthening the greening objective and capacity of green bonds.
- Encourage the regulator to play a role in this aspect by requiring all issuers to disclose information on the alignment.

5.2 Demand Side

1. Transparency

- Ensure transparency by requiring the external review to be provided by a recognized third-party and requiring an annual report.

- Establish a green bond Transparency Platform to synthesize green bond issuers' information, including bonds' primary data, environmental impact, and reports.

2. Development of Investment Instruments

- Develop new types of investment instruments such as green bond mutual funds or ETFs.

International Development Banks as an Investor

- Encourage international development banks to play a crucial role as green bond investors through private placements.
- Creates trust among investors regarding the issuers through encouraging involvement of international development banks.

5.3 Both Supply and Demand Sides

1. Standardize the Green Bond Market

- Establish a green bond standard or principle that includes common definitions and norms upon which issuers and investors could agree as they should reach an agreement in terms of scope and procedures in Ukraine; and
- Develop a taxonomy by taking into account its major sectors with environmental benefits.

2. Develop Synergies with Other Instruments

Alternative instruments represent a potential answer to address the limits of the traditional green bond in Ukraine during the transit period.

(1) Issuance of Transition Bonds

- Transition bond is a new type of bonds, designed to enable firms in Ukraine, which currently cannot issue traditional green bonds, to issue bonds that intend to support them to gradually transit towards a greener economy.
- It is used to scale up the green bond market, and address the deficit of green capital expenditures. It can meet investors' needs in achieving the emission reduction while reaching wide range of issuers and investors.

(2) Issuance of Sustainability-linked Financing Instruments

- Sustainability-linked financing is a suitable alternative to scale up the green and sustainable market. Although the funding is not connected to a specific project its pricing is linked to defined sustainability targets. Thus, it allows firms, that do not own substantial green projects, to finance the general corporate green purposes.

Appendix 5.1 Emerging Market Green Bond Issuance

Emerging Market Green Bond Issuance Cumulative Issuance, 2012-21 (US\$ million)

China	221,267
India	17,750
Chile	13,584
Brazil	10,207
Poland	7,374
Czech Republic	7,318
Indonesia	5,462
Mexico	3,599
Hungary	3,354
Philippines	2,946
South Africa	2,828
Thailand	2,778
United Arab Emirates	2,554
Russian Federation	2,552
Romania	1,926
Malaysia	1,838
Peru	1,686
Turkey	1,440
Saudi Arabia	1,300
Ukraine	1,183
Serbia	1,174
Argentina	1,165
Colombia	1,067
Egypt, Arab Rept	850
Lithuania	822

Continue

Country	(US\$ million)
Georgia	750
Guatemala	700
Slovak Republic	520
Costa Rica	504
Pakistan	500
Uruguay	361
Morocco	356
Panama	315
Latvia	314
Vietnam	227
Nigeria	155
Ecuador	150
Slovenia	100
Lebanon	60
Kenya	58
Estonia	56
Armenia	50
Fiji	48
Bangladesh	29
Dominican Republic	20
Barbados	19
Côte d'Ivoire	18
Seychelles	15
Namibia	5

Appendix 5.2 Documents Consulted

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