



Ministry of Economy and Commerce,
Kyrgyz Republic



Fixed Income Market Development in the Kyrgyz Republic to Catalyse International and Domestic Climate Finance (green bonds): Rapid Readiness Assessment

April 2023



Acronyms and Abbreviations

ARIS	Community Development and Investment Agency
ADB	Asian Development Bank
BESS	Battery Energy Storage System
BAU	Business-as-Usual
CFC	Climate Finance Centre
CSA	Climate Smart Agriculture
DAE	Direct Access Entity
EIRR	Economic Internal Rate of Return
ENPV	Economic Net Present Value
ESG	Environmental, Social and Governance
FSC	Forest Stewardship Council
GBPs	Green Bond Principles
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GHG	Greenhouse Gas
GCF	Green Climate Fund
GGGI	Global Green Growth Institute
GOK	Government of Kyrgyz Republic
G2G	Government-to-Government
GDP	Gross Domestic Product
IFC	International Finance Corporation, World Bank
IFRS	International Financial Reporting Standards Foundation
IMF	International Monetary Fund
ISSB	International Sustainability Standards Board
JICA	Japan International Cooperation Agency
G-PASS	Korea G-PASS Company Export Association
KOICA	Korea International Cooperation Agency
MOU	Memorandum of Understanding
MEC	Ministry of Economy and Commerce, Kyrgyz Republic
MOEF	Ministry of Economy and Finance, Republic of Korea
MOF	Ministry of Finance, Kyrgyz Republic
MONRETS	Ministry of Natural Resources, Ecology and Technical Supervision, Kyrgyz Republic
NDA	National Designated Authority
NDC	Nationally Determined Contributions
NGO	Non-Government Organisation
OM	Operations Manual
PRC	People's Republic of China
PPS	Public Procurement Service, Republic of Korea
PPP	Public-Private Partnership
PRB	Principles for Responsible Banking
SDG	United Nations Sustainable Development Goals
SOE	State-Owned Enterprise
SCEC	State Committee on Ecology and Climate, Kyrgyz Republic
TCFD	Taskforce on Climate-Related Financial Disclosures
UNFCCC	United Nations Framework Convention on Climate Change
UN-FAO	United Nations Food and Agriculture Organization
UNDP	United Nations Development Programme
UNEP-FI	United Nations Environment Programme Finance Initiative
USAID	United States Agency for International Development

Figures

Figure 1. 1-day in-country workshop on Green Bond market development.....	11
Figure 2. Survey response – Which best describes the interest/status of your Company/Organisation engaging in green financial instruments (e.g. green bonds, green loans...)?.....	13
Figure 4. Survey response – What is your key driver to seek for investments in green bond (or for you to explore green financial instruments)?	16
Figure 5. Survey response – From the investor perspective, what are the main obstacles that you think are preventing you from investing in green bonds?	16
Figure 6. Survey response – Rank the main policy mechanisms that would encourage you to invest in green bonds (Select the top 3)?.....	17
Figure 7. Survey response – In the next 3 years, what sector do you see with the most potential for green bond issuance in Kyrgyz Republic (Select the top 3)?	17
Figure 8. Survey response – How likely do you think your company/organisation will invest or engage in green bond activities in the next 1-3 years?.....	18
Figure 9. Survey response – Which issuer would you prefer to invest or underwrite (for securities firms) in green bonds in the next 3 years?	18
Figure 10. Survey response – When considering a green bond investment, how important is each of the following?.....	18
Figure 11. Survey response – From your point of view, which actions will be needed for the green bond market to further develop in Kyrgyz Republic?	19
Figure 12. Survey response – In short to medium term, how likely do you think the COVID-19 will affect the following components on the development of the green bond market in Kyrgyz Republic?	19

Boxes

Box 1. Survey response – Main Obstacles.....	14
Box 2. Survey response – Capacity Building and Training Needs.....	18

Tables

Table 1. List of Stakeholders consulted.....	9
Table 2. Taskforce on Climate-Related Financial Disclosures (TCFD)'s disclosure pillars.....	20
Table 3. ICMA's core components.....	21

Foreword

Under the "National Development Strategy of the Kyrgyz Republic (2018-2040)", the government is determined to create enabling ecosystem to attract domestic and international climate finance. The first important step in this direction is to understand the existing market conditions; including, pertaining gaps and bottlenecks for green bond market development, as well as the future prospects and opportunities.

The Kyrgyz Republic is a signatory to the Paris Agreement under the United Nations Framework Convention on Climate Change.¹ It is encouraged that the member countries ought to develop their climate actions science-based and technology-driven, utilising top-down and bottom-up approaches. The Ministry of Economy and Commerce invited the "Korea G-PASS Company Export Association" to conduct a fixed income (green bond) market readiness assessment.² This important partnership was extended to the "Global Green Growth Institute", upon endorsement by the Ministry of Natural Resources, Ecology and Technical Supervision.³ This assessment was conducted jointly among the parties – carried out in a close consultation with all key stakeholders involving the public, private, civil society, academia, and international community players who are actively operating in the country. The outcome of this assessment sets the current stage of market development in the country, with clear practical pathways towards future development. This is an important milestone to determine our future collaborative activities in climate mitigation and adaptation space in the country, to be carried out in a close cooperative spirit among all key stakeholders. We encourage this assessment to be conducted on annual basis, to allow time-series comparison of key market indicators as they evolve over time.

Our special thanks go to those stakeholders who actively participated in the unstructured interviews and also in the structured surveys. Without your kind participation, this would not have been possible. We also thank all those who worked tirelessly on this assessment. Your valuable contributions coupled with many hours of supervisory works put into by the responsible officers of the "Global Green Growth Institute" and the "Korea G-PASS Company Export Association", and of their international and local consultants, are highly appreciated. If you have any comments and clarifications concerning this publication, please do not hesitate to contact: Mr. Kanat Abdrahmanov, Deputy Minister, Ministry of Economy and Commerce (kanat.abdrahmanov@gmail.com), and Mr. Mr. Beksultan Ibraimov, Deputy Minister, Ministry of Natural Resources, Ecology and Technical Supervision (ibraimov.beksultan@gmail.com). We welcome your feedback as to how we may improve the assessment qualities in the future.



Amangeldiev Daniyar Joldoshevich

His Excellency Minister
Ministry of Economy and Commerce
Kyrgyz Republic

¹ Signed on 21 September 2016

² MEC letter dated 26 April 2022

³ MONRETS letter dated 28 September 2022

Executive Summary

1. The “Global Green Growth Institute” and the “Korea G-PASS Company Export Association” are jointly engaged by the Government of Kyrgyz Republic (GOK) to conduct an assessment of fixed income (green bond) market readiness, pursuant to their partnership agreement. The parties present this assessment report reflecting on the outcomes of series of unstructured interviews and a structured survey. This contains identified pertaining gaps and bottlenecks for green bond market development in the Kyrgyz Republic, while determining the future prospects and opportunities. Policy recommendations are developed in order to determine the needs for further involvement by international and multilateral organisations.
2. One of the major bottlenecks to the development of green bond market in the Kyrgyz Republic is lack of domestically available capacities. The government's overall visions and strategies are reasonably well developed and there is a clear high-level strong commitment, yet translating it into tangible actions on the grassroots level is partially hampered by inadequate capacities of the public and private sector players. The authorities are in the process of developing the country's first green taxonomy, but they indicated that they will need substantial technical support, particularly regarding development of sector-specific taxonomies and related measuring, reporting and verification mechanisms. Currently, there is no green public procurement legal framework nor a nationally acceptable supply of qualified green products, which ought to be automatically considered eligible for green loan origination by the commercial banks and other financial institutions, as long as they meet the targeted social impacts. Creation of enabling regulatory framework coupled with a sophisticated platform of wider supply of localised eligible green products may be an important step to successful issuance of green use-of-proceeds type of bonds in compliance with the green bond principles. This shall be clearly reflected in the issuer's green bond framework. Measuring, reporting and verification mechanism needs to follow international best practices. None of the systemic commercial banks is a signatory to international sustainable reporting standards. There is a precedence of debut thematic bond issuance; nevertheless, the prospectus lacks in terms of proper post-issuance obligatory mechanisms and the issued face value was insignificant. The use of second party opinions or external reviews is uncommon and not yet a mandatory requirement. There is no direct access entity in the country for Green Climate Fund, fully reliant on international accredited entities – as this will be an important aspect if green bond market development is to be supported as part of the envisaged multiyear readiness support. Derisking mechanisms remain close to non-existent, and available hedging options are costly. The market practice of credit guarantee scheme is limited in terms of its coverage. Market participants often confuse green bonds with onlending mechanisms with green funding sources.
3. According to the survey respondents, (i) renewable energy; (ii) sustainable agriculture (e.g. organic farming, low-carbon cultivation, and etc.); and (iii) water (e.g. water supplies, waste-water treatment, etc.) sectors topped as the most potential sectors for green bond issuance in Kyrgyz Republic, within the next 3 years. Mostly smaller size deals are sought after by the market participants as almost 2/3 of the survey respondents are looking for deals below US \$10 million. In the energy sector, the government's subsidised low tariff is one of the most impeding issues for green project types of bond market development in the renewable energy sector. Poor logistical network, lack of market access and improper value-chain development are among the major bottlenecks in other sectors, such as: green manufacturing and agriculture sectors. Despite earlier efforts to promote Forest Stewardship Council certification in the country, the number of certified entities remains limited (and those who may be certified are not functioning properly). Innovative climate smart agriculture practices need to be introduced to prevent overexploitation of natural resources while ensuring sustainable livelihood for the poor. Bankable projects need to

be developed – crucially important to be fully backed by internationally acceptable feasibility studies – which may be developed off the current list of green projects (containing about 170 mitigation and adaptation project ideas). On-the-job training to the responsible officers of the pilot issuer(s) shall be carried out by a specialised competent international consultant team, installing best practices within issuer's organisation, covering the beginning-to-end issuance procedures in line with the 4 main components.

4. This assessment is not a roadmap. Following this assessment, a more comprehensive analysis needs to be conducted engaging all key stakeholders. This shall be a more complete exercise, which will need to be carried out as part of a broader step-by-step roadmap to be developed to accelerate overall green bond market development in the Kyrgyz Republic. Various workshops will need to be organised consisting of all key stakeholders to provide systemic knowledge using prior approved training modules. We aimed to keep this assessment report short and practical.

Country Context

5. The Kyrgyz Republic is a landlocked country in Central Asia – located between Kazakhstan, People's Republic of China (PRC), Tajikistan, and Uzbekistan. More than 90% of the country is elevated at >1,000m above the sea level, sandwiched between two major mountain systems such as: (i) Tien Shan; and (ii) Pamirs. The country is vulnerable to climate change impacts, ranking the 75th among 181 countries.¹ As reported to the United Nations Framework Convention on Climate Change (UNFCCC), average annual temperatures in the country have risen about 1.1°C between 1960–2010 (with a notable acceleration within 1990-2010), and the most vulnerable sectors towards climate change include water, energy, agriculture and infrastructure.² Out of nearly 7 million population, about 35% of the workforce is employed in agriculture sector – majority in animal husbandry and crop production activities, with seasonal sprinkling irrigation system linked with surface water sources supplied from mainly mountain glaciers.³ The country is rich in mineral resources, including gold, where the largest gold mining company (Kumtor) is owned 100% by the state.

6. The Kyrgyz Republic is a relatively small emitter of greenhouse gas (GHG) – the 137th in the world – with a total share of 0.03%.⁴ The country remains active in the global commitment to GHG mitigation, with the goal to reduce GHG emissions with international support by 36.61% and 43.62%, respectively by 2025 and 2030, under the business-as-usual (BAU) scenario.⁵ Domestic production of electricity is dominant in hydro (more than 70%). According to the updated Nationally Determined Contributions (NDC), the country identified mitigation actions and policies in five sectors, three of which are prioritised: (i) energy, (ii) agriculture, and (iii) forestry and other land use sectors. In parallel, the updated NDC included adaptation measures denominated mainly in sectors such as: (i) water resources and agriculture; (ii) energy; (iii) emergencies; (iv) public health; (v) forest and biodiversity; as well as intersectoral sections: (vi) climate-resilient areas; and (vii) green cities. The updated NDC emphasises the government's commitment to catalyse private investment in climate projects, using public-private partnership (PPP) schemes.

7. According to the International Monetary Fund (IMF), public debt in Kyrgyz Republic reached about 60% of the gross domestic product (GDP) level, but remains relatively sustainable in the long-run, thanks to majority of such debt being denominated in external debts mostly contracted on highly concessional terms.⁶ Nevertheless, its impending upward shift limits the country's ability to issue sovereign-guaranteed bonds in the domestic and international markets to finance climate actions in the priority sectors, for which, according to the updated NDC, the country needs more than USD \$6 billion in terms of international climate finance. The IMF recommends the Kyrgyz government to proactively seek concessional financing only, to prevent debt unsustainability. The President of the Kyrgyz Republic urged his international partners to initiate debt-for-nature swaps, which require restructuring of sovereign debts in order to achieve debt forgiveness (or to cut costs of debt services), while the original proceeds are to be used for local investment in environmental conservation projects (mainly hydro electricity generation projects).⁷

¹ University of Notre Dame. 2020. Notre Dame Global Adaptation Initiative (ND-GAIN Index). Viewed: <https://gain.nd.edu/our-work/country-index/>

² Kyrgyz Republic. 2016. Third National Communication to the UNFCCC. Bishkek, Kyrgyz Republic

³ National Statistics Committee of the Kyrgyz Republic. 2022. National Statistics Yearbook 2022. Bishkek, Kyrgyz Republic

⁴ Climate Watch. 2023. Kyrgyzstan: Country Profile. Viewed: https://www.climatewatchdata.org/countries/KGZ?end_year=2019&start_year=1990

⁵ Government of Kyrgyz Republic. 2021. Updated Nationally Determined Contributions. Bishkek, Kyrgyz Republic

⁶ International Monetary Fund. 2022. Kyrgyz Republic: Staff Concluding Statement of the 2022 Article IV Consultation Mission (02 December 2022). Washington DC, USA

⁷ Sadyr Japarov (2023). Public Address, 08 January 2023. Bishkek, Kyrgyz Republic

Background and Purposes of the Fixed Income (green bonds) Market Assessment

8. The Global Green Growth Institute (GGGI) is a treaty-based international, inter-governmental organisation dedicated to supporting and promoting strong, inclusive and sustainable economic growth in developing countries and emerging economies.⁸ The Kyrgyz Republic became a member of the GGGI in 2020.⁹ The Korea G-PASS Company Export Association (G-PASS) is a government association under the Public Procurement Service (PPS) of the Ministry of Economy and Finance (MOEF), the Republic of Korea.¹⁰ The G-PASS was requested by the Ministry of Economy and Commerce of the Kyrgyz Republic to conduct a rapid fixed income market assessment (green bonds) – a way to accelerate green transition in the country utilising transfer of Korean innovative green technologies.¹¹ The Green Climate Fund (GCF)'s Nationally Designated Authority (NDA) endorsed the GGGI for delivery of a multiyear GCF readiness project to promote green bond market development, in partnership with the G-PASS, in order to help effectively catalyse climate finance both internationally and domestically.¹² As stipulated in the Memorandum of Understandings (MOU) signed with the MEC¹³ and the MONRETS¹⁴, the GGGI and the G-PASS entered into a partnership agreement.¹⁵ The parties agreed to implement a number of joint activities, including, but not limited to: (i) joint development of a GCF multiyear readiness project; and (ii) an assessment to be conducted on green bond market development in the Kyrgyz Republic. The subject fixed income (green bonds) market assessment aimed at rapidly establishing the existing baseline market conditions in the Kyrgyz Republic concerning green bond readiness, in order to determine pertaining gaps and future opportunities, supported by practical policy recommendations.

Methodologies and Approaches

9. This assessment was carried out in close consultation with all key stakeholders in the country, taking stock of the outcomes of unstructured interviews conducted during in-country consultation missions as well as of a structured online survey. The GGGI and G-PASS organised a number of in-country missions, three and two missions respectively. A 1-day in-country workshop was held by the GGGI in December 2022, which was widely recognised by the participants as highly useful and informative. The list of stakeholders consulted is, as follows:

Table 1. List of Stakeholders consulted

No	Organisation name:
1	Administration of the Deputy Chairman of the Government Cabinet
2	Administration of the President
3	Aiyl Bank OJSC
4	Asian Development Bank

⁸ www.gggi.org

⁹ Accession of Membership, dated 15 May 2020

¹⁰ www.gpass.or.kr

¹¹ MEC letter dated 26 April 2022, and G-PASS's fact-finding and inception missions to Kyrgyz Republic on 03-07 July 2022 and 24-27 December 2022, respectively

¹² MONRETS. 2022. Nomination of GGGI as the Delivery Partner for Kyrgyz Republic's GCF Readiness Support, namely: Mobilising Domestic and International Climate Finance and Private Sector Investments in Kyrgyz Republic" 28 September 2022, Bishkek, Kyrgyz Republic

¹³ MOU signed between GGGI and MEC, dated 26 October 2022

¹⁴ MOU signed between GGGI and MONRETS, dated 01 December 2022

¹⁵ Partnership Agreement, dated 16 January 2023

5	Astana International Financial Centre
6	Bailyk Finance MCC
7	Bank Bai Tushum OJSC
8	Bank of Asia
9	Bishkek City Counsel
10	Chakan GES OJSC
11	Community Development and Investment Agency (ARIS)
12	Delegation of the European Union to the Kyrgyz Republic
13	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
14	Dos-Credobank OJSC
15	Embassy of the Republic of Korea to the Kyrgyz Republic
16	European Bank for Reconstruction and Development
17	Green Finance Centre (Bishkek)
18	Guarantee Fund OJSC
19	International Finance Corporation, World Bank (IFC)
20	Japan International Cooperation Agency (JICA)
21	Keremet Bank
22	Korea International Cooperation Agency (KOICA)
23	Kyrgyz Stock Exchange
24	Ministry of Agriculuture
25	Ministry of Economy and Commerce
26	Ministry of Education and Science
27	Ministry of Energy
28	Ministry of Finance
29	Ministry of Foreign Affairs
30	Ministry of Natural Resources, Ecology and Technical Supervision
31	Ministry of Natural Resources, Ecology and Technical Supervision, Climate Finance Centre
32	National Bank
33	OXUS Finance MCC
34	Public Fund AVEP
35	RSK Bank JSC
36	Russian Kyrgyz Development Fund
37	Salym Finance MFC
38	Senti Financial Company
39	State Mortgage Company
40	Union of Banks of the Kyrgyz Republic
41	United Nations Development Programme (UNDP)
42	United Nations Food and Agriculture Organization (FAO)
43	United States Agency for International Development (USAID)
44	World Bank

Figure 1. 1-day in-country workshop on Green Bond market development



10. In order to assess the demand-side of green bond market readiness in the Kyrgyz Republic, a structured survey was conducted in February 2023 among domestic and international investors and underwriters that are currently active in the country. The total of 16 organisations responded, represented by 19 individual surveyees. Majority are commercial/investment banks (5 banks), followed by 3 development financial institutions (bilateral, multilateral or international organisations), and an asset manager, a professional service firm, a brokerage/underwriter firm, and a micro credit institution. Also, 3 policy making bodies (government ministry, regulatory body or stock exchange) and 1 state-owned enterprise (SOE) participated in the survey. This reflects on the market drivers, bottlenecks, and prospects of the Kyrgyz Republic's green bond market via the viewpoint of those stakeholders. This would assist development partners in designing technical interventions and programs to support the development of the Kyrgyz Republic's sustainable finance market.

Key Findings

A. Policies & Institutional Arrangements

11. The “National Development Strategy of the Kyrgyz Republic (2018-2040)” sets the vision of the “country with favourable environment for human life, developing in harmony with nature, preserving unique natural ecosystems and efficiently using natural resources for climate-sustainable development”.¹⁶ The strategy recognises the country's vulnerability to climate change, and hence specifically emphasises on the importance of climate data analytics, in order to accurately predict the future natural disasters. It also signifies a key role to be played by climate education and entrepreneurship support. The government focus includes greening urban areas and other mitigation and adaptation climate actions in agriculture and water. Private sector participation is encouraged. The “National Development Program of the Kyrgyz Republic (until 2026)”, was developed to compliment the strategy (2018-2040), setting the vision of inclusive and sustainable development under the slogan of “leave no one behind”.¹⁷ The measurable outcome of this program shall be to reach GDP per capita of USD \$1,500 by 2026. The “Digital Kyrgyzstan (2019-2023)” strategy aims to build an open and transparent state, with a knowledge-based economy while simultaneously raising the quality of life for average Kyrgyz citizens and improving the overall business environment.¹⁸

12. The Climate Finance Centre (CFC) was established in 2017, as an independent entity responsible for development of climate related policies as well as implementation of related projects funded by international donors. It supports mobilisation of and access to climate and development funds in key economic sectors. In 2021, the Ministry of Natural Resources, Ecology and Technical Supervision (MONRETS) was created succeeding the State Committee on Ecology and Climate (SCEC). The MONRETS is an “authorized state executive body that develops and implements state policy and coordinates in the areas of environmental protection, ecology and climate, geology and subsoil use, use and protection of natural resources, including bioresources, subsoil and water resources, with the exception of irrigation and reclamation infrastructure, exercising state control and supervision over compliance with environmental (including chemical, biological, radiation and nuclear), industrial safety, mining safety, subsoil protection, coal and fuel quality”.¹⁹ The CFC now operates under the MONRETS supervision. MONRETS's deputy minister is assigned as the GCF's NDA, while the Director of CFC is designated as the deputy

¹⁶ Government of Kyrgyz Republic. 2017. National Development Strategy of the Kyrgyz Republic (2018-2040). Bishkek, Kyrgyz Republic

¹⁷ Government of Kyrgyz Republic. 2021. National Development Program of the Kyrgyz Republic (until 2026). Bishkek, Kyrgyz Republic

¹⁸ Government of Kyrgyz Republic. 2018. Digital Kyrgyzstan (2019-2023). Bishkek, Kyrgyz Republic

¹⁹ Ministry of Natural Resources, Ecology and Technical Supervision. Viewed: <https://mnr.gov.kg/en/>

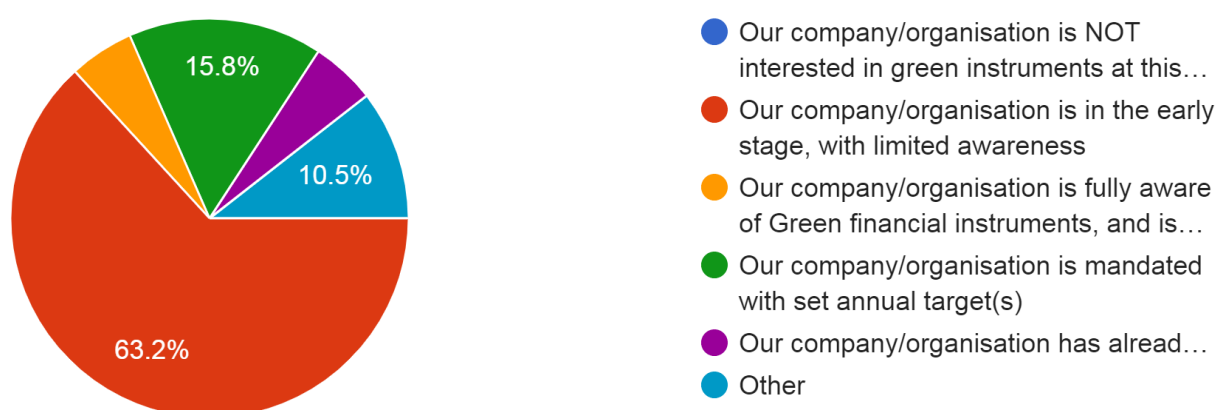
NDA. The national committee to develop national climate adaptation plans is established, but is pending to have their first official meeting.

13. The MEC coordinates all donor funded grant projects in the country, whereas the Ministry of Finance (MOF) oversees all sovereign lending projects, including onlending (mainly towards state-owned enterprises in energy sector), which are backed by sovereign guarantees. Currently, there is no direct access entity (DAE) of GCF in the Kyrgyz Republic. There are currently 8,000-12,000 registered non-government organisations (NGOs) in Kyrgyz Republic, but only half of them are active.²⁰ The Soros Foundation-Kyrgyzstan reported that 43% of all active NGOs in Kyrgyz Republic are engaged in human rights activities, followed by health care (25%), civic education (22%), gender (17%), but only a small number of them are operating in environment area (15%).²¹

B. Bottlenecks, Prospects and Opportunities

14. The green bond market potential in the Kyrgyz Republic is currently under utilised. Except only 3 survey respondents, who indicated that their respective companies/organisations are mandated with set annual target(s) for the Kyrgyz Republic; more than 63% responded that their companies/organisations are in the early stage with limited awareness, when they were asked of the current status of their company/organisations engaging in green financial instruments (e.g. green bonds, green loans, and etc.). Only 1 surveyee responded that their company/organisation has already established specific green bond funds/portfolio. On the other hand, all responded that they are either advising their clients already concerning certain green investment portfolio or they find it the most significant in their portfolio. The 5 most significant sectors for their portfolio may be Sustainable agriculture (e.g. organic farming, low-carbon cultivation), Green buildings, Renewable energy, and Energy efficiency (energy saving); and Clean transportation (e.g. public transport, e-mobility, and etc.). One commercial bank indicated that more than 4% of their outstanding loan portfolio is denominated in clean transportation, followed by fish farming & aquaculture (0.46%), and renewable energy (0.33%). Another commercial bank may be providing interest-free green lending to their retail customers on a limited scale purely for marketing purposes.

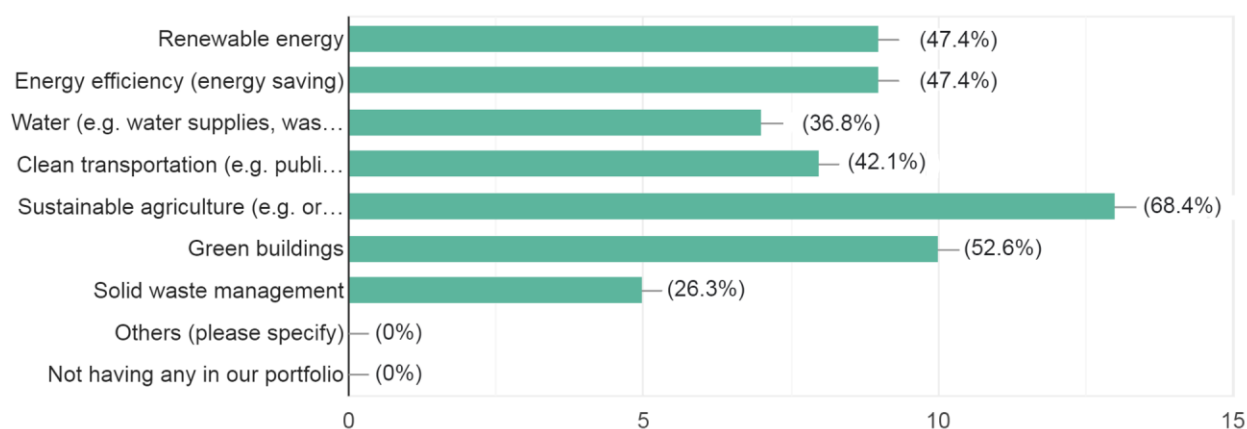
Figure 2. Survey response – Which best describes the interest/status of your Company/Organisation engaging in green financial instruments (e.g. green bonds, green loans...)?



²⁰ Asian Development Bank (ADB).2011. Civil Society Brief – Kyrgyzstan. Manila, Philippines

²¹ Soros Foundation-Kyrgyzstan. 2006. NGO Sector: Facts and Figures (NGOs in Kyrgyzstan: Yesterday, Today, Tomorrow). Bishkek, Kyrgyz Republic

Figure 3. Survey response – Which of the following sector(s) is currently the most significant in your green investment portfolio (or currently your Company/Organisation is advising your clients in)?



15. The Kyrgyz Republic faces electricity shortage, especially during the peak hours in the mornings and evenings. Additionally, there is a tendency that frequency of water shortage during the crop growing season in Spring may be increasing (between March and June, depending on the exact locations of sources of glacier water). This restricts large scale hydro electricity production. Floating solar potential presents possibility of greater utilisation of existing hydro electricity generation sites; however, the nature of seasonal fluctuation of water levels at the sizable reservoirs requires highly sophisticated innovative technological solutions. This is a regional issue, spun over upstream and downstream water users in countries, such as: Kazakhstan, Kyrgyz Republic, Uzbekistan, and Tajikistan. There have historically been cases of border conflicts fuelled by matters indirectly related with water use in neighbouring countries for agriculture purposes. The country imports as much as 2 billion kWh electricity from neighbouring countries annually, and therefore the Government wants to develop small hydro, solar and wind electricity generation projects. The rate of electricity loss is high due to old-soviet style transmission and distribution networks, which need major renovation. Energy inefficiency in old concrete and briquette flats and public buildings is significant, which reaches as much as up to 40% energy loss. Building codes for boiler plants and HVAC were revised, but the utilisation rate of innovative green boilers and HVAC remains to be low, posing a major concern of enforceability. The capital city (Bishkek) remains to be one of the most polluted in the world – thanks to continuous use of non-standard boilers and heating facilities at homes.

16. There is no dedicated public procurement policy mechanism in place to promote green public procurement. In absence of nationally practiced green taxonomy, the commercial banks and micro lending institutions tend to develop their own green lending products, but the lack of independent internationally recognised expert monitoring and verification mechanism opens up a room for potential greenwashing. It may have become a practice that green use-of-proceeds type of onlending instruments tend to rely on “green” products listed onto an online platform, but the listed green products may not provide the varieties that are sought after by the individual borrowers, nor majority are unavailable at times in the local market. This may be replaced by a localised platform of nationally acceptable comprehensive green products, to be sourced both from domestic and international markets. Innovative climate smart agriculture (CSA) practices need to be introduced to prevent overexploitation of natural resources while ensuring sustainable livelihood for the poor. There is a limited public awareness of the benefits of green sustainable agricultural activities on the grassroots level. A number of public universities and academic centres are actively researching in climate fields, but their capacities are rather limited in terms of deploying innovative scientific approaches and their water data analysis and accurate

weather forecasting capacities are limited. According to one NGO, who is actively providing climate related public education, the public knowledge of climate risks is rather limited.

Box 1. Survey response – Main Obstacles

When were asked to respond freely in writing, the respondents emphasised, as follows:

Survey Respondent 1. We are implementing green lending programs with the international financial organizations. We opened credit lines with them. Our borrowers have preliminary understanding of green lending requirements now. They want to issue green bonds, but we cant help them. We need more capacity building. Moreover, our borrowers ask us to provide more varieties of green construction product lists. ... Has a list of green construction materials and equipment. But, this list is very small. Our borrowers import green labelled construction materials from foreign countries. They want to import innovative products from Korea. We asked to connect us with the Korea G-PASS Company Export Association, but still no luck yet.

Survey Respondent 2. ... Lack of existence of institutional investors is the biggest obstacle to thematic bond market development in Kyrgyzstan. We tried to underwrite a number of small scale bonds using Kyrgyz Stock Exchange platform. Market penetration in the local market is insufficient. Only a few individual investors are interested in fixed income assets. There are no functioning investment funds in Kyrgyzstan, nor any pension funds who are investing. The government pension fund cant invest in capital market instruments. Non-bank financial organizations are small and they dont know the benefits of bonds. Hedging for Kyrgyz som bonds is expensive. It would be better if Kyrgyz Stock Exchange could develop a dual listing with other international markets.

Survey Respondent 3. ... We need capacity building and institutional strengthening to improve access to global green finance mechanism. GCF's national designated authority does not have enough manpower to develop the enabling regulatory framework. MRV system does not exist in Kyrgyzstan, which is the most important element to prevent greenwashing. We dont have any direct access entities in Kyrgyzstan to access GCF funding. ... Kyrgyzstan imports many construction materials from foreign countries. ... We want to send staff to Korea to learn Korean innovative technologies to create green standards for green building, smart agriculture. Bond issuers always ask to import good products from Korea. We are developing our first green taxonomy, but ... dont know the green products for construction and agriculture sectors.

17. The biggest motivation for seeking investments in green bonds (or to explore green financial instruments) is to attract global green and climate funds. It is also important for the respondents to improve green images of their organisations. Nevertheless, they tend to remain largely unsure of the actual benefits of issuing green bonds at this stage. There is a lack of appropriate green finance framework in the country. Major commercial banks and other financial institutions do not have the practice of engaging internationally competent consultants to provide them on-the-job training to help develop workable green bond frameworks. Pipeline of suitable green projects does not exist publicly, except the list compiled by the MONRETS in consultation with line ministries (containing about 170 mitigation and adaptation project ideas), which faces a risk of being regarded as a plain wishlist, unless otherwise prioritised and then associated with proper funding and implementation strategies, according to applicable guidelines and principles. Policy guidance related to green bonds remains absent. The market participants often confuse the green bond framework with their existing onlending facilities with green funding sources. In multiple occasions, the professional market participants tend to wonder whether up to 100% of the green bond proceeds are secured possibly on purely grant basis, without standard financial characteristics such as: seniority, maturity, ratings, interest rate, and etc. One of the financial institutions mentioned that they do not see value in international rating, while on the other hand, hoping to source financing from international funding institutions in partnership with an international organisation.

18. The SOEs appear to be spoiled with cheap lending mechanisms, which are made available to them on non-resource to their debt obligations basis – fully backed by unconditional and irrevocable sovereign guarantees. This fails to provide enough incentives for the SOEs to improve their financial positions nor to introduce the best practices of corporate governance. In the energy sector, electricity tariff is heavily subsidised by the government. Poor logistical network (due mainly to landlocked nature of the country), lack of market access and improper value-chain development are the major bottlenecks in other sectors, such as: green manufacturing and agriculture sectors. During some stakeholder meetings, it was revealed that there may be a large black market for illegal exports of timber and non-timber products into the European market (with falsified country-of-origin documents portraying if the products are originated from the Kyrgyz Republic). Such fraudulent activities may even be on the rise due to Russia-Ukraine conflicts. This translates into a possibility to precipitate substantial climate finance into the CSA and sustainable forest management, particularly due to stronger scrutiny in the European Union in terms of checking the origins of certain commodities and products associated with deforestation and forest degradation.²² Even though there have traditionally been some efforts to promote Forest Stewardship Council (FSC) certification, the number of certified entities is limited (or not functioning). The commercial banks will stand ready to provide favourable lending products to sustainable CSA.²³

Figure 4. Survey response – What is your key driver to seek for investments in green bond (or for you to explore green financial instruments)?

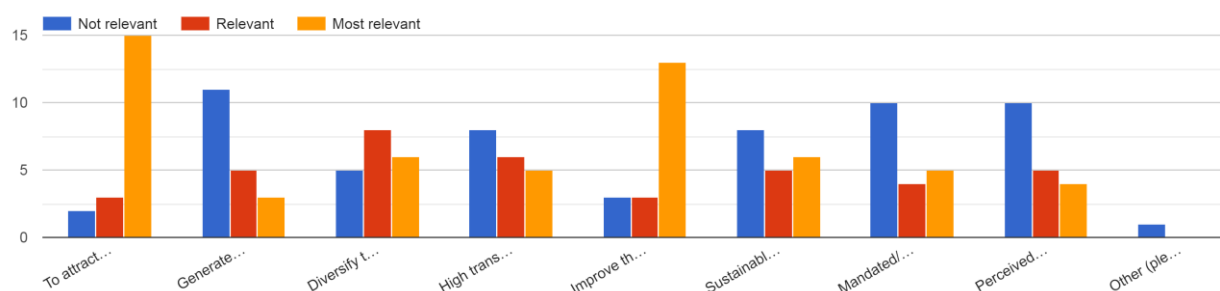
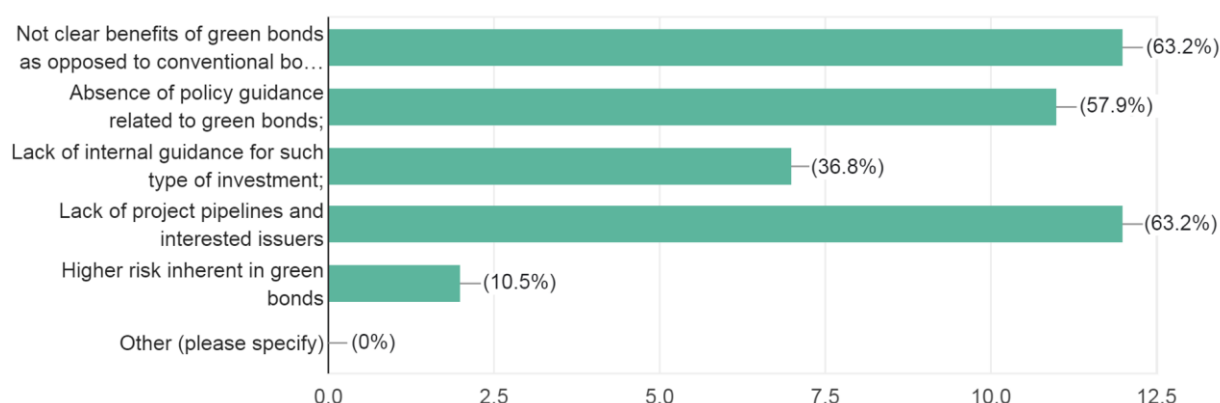


Figure 5. Survey response – From the investor perspective, what are the main obstacles that you think are preventing you from investing in green bonds?



19. According to those who responded to the survey, they received insignificant number of requests from their current/prospective clients about issuing green bond within the last 12

²² Council of the European Union. 2022. REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of on the making available on the Union market as well as export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010. Brussels, Belgium

²³ GCF. 2019. Carbon Sequestration through Climate Investment in Forests and Rangelands. Incheon, Republic of Korea

months. The survey participants would like to see better standardisation of the “green” on applicable projects (taxonomy), as a main policy mechanism that would encourage them to invest in green bonds. This was followed by other policy mechanisms that are desired to be in place to encourage green investments, which included: tax incentives/subsidies for green bond investors and mandatory disclosure of activities/of results. Independent reviews of green bond issuance framework, as well as preferential treatment of low carbon assets and penalisation of high carbon assets are also important, they answered. Sectors such as (i) renewable energy; (ii) sustainable agriculture (e.g. organic farming, low-carbon cultivation, and etc.); and (iii) water (e.g. water supplies, waste-water treatment, etc.) topped as the most potential sectors for green bond issuance in Kyrgyz Republic, within the next 3 years. Mostly smaller size deals are sought after by the professional market participants as almost 2/3 of the survey respondents are looking for deals below US \$10 million, but currency risk hedging instruments are limited and may be expensive. The sovereign government sponsored credit guarantee scheme operates, but it remains to be mainly MDB related program-specific.

Figure 6. Survey response – Rank the main policy mechanisms that would encourage you to invest in green bonds (Select the top 3)?

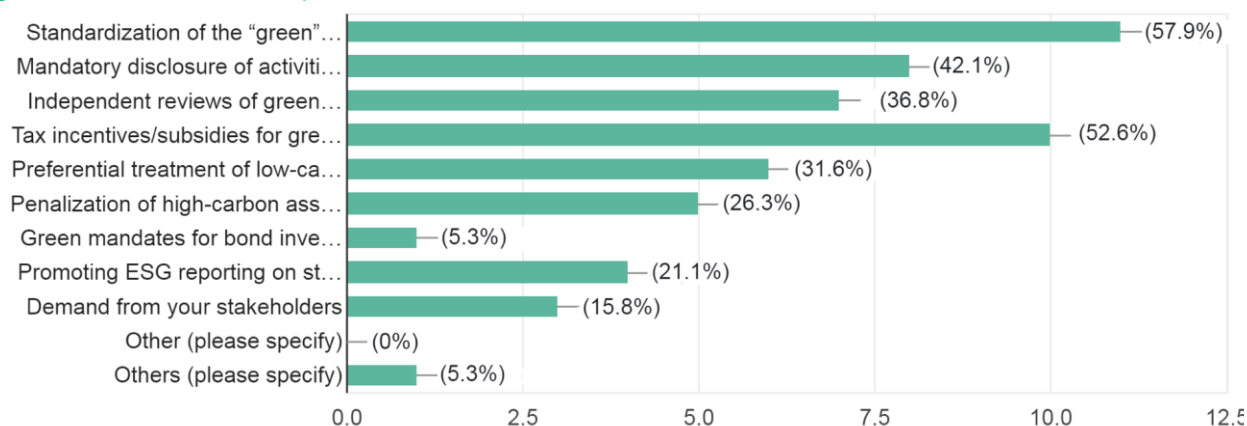
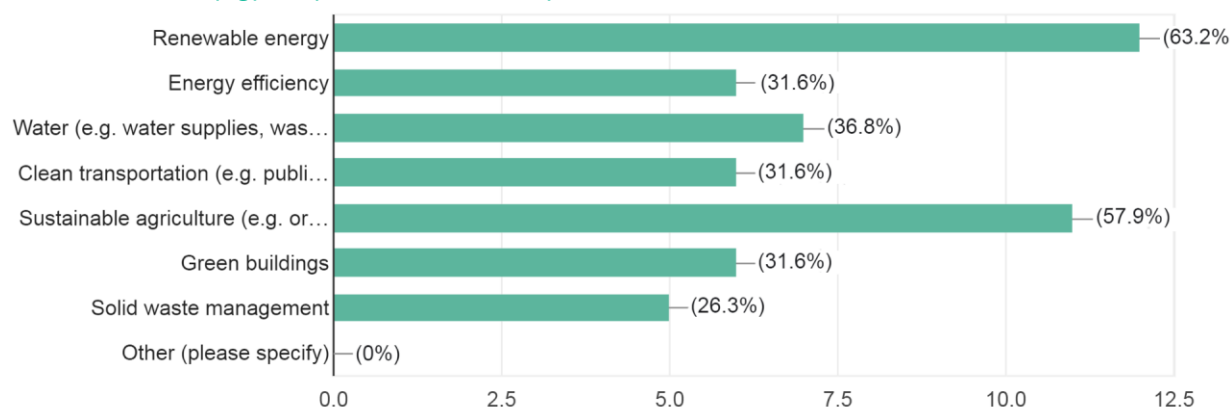


Figure 7. Survey response – In the next 3 years, what sector do you see with the most potential for green bond issuance in Kyrgyz Republic (Select the top 3)?



20. It is unlikely for the survey respondents to invest or engage in green bond activities within 1 year, but likelihood increases steadily if within a longer timeframe such as the next 1-3 years and even after 3 years. They may be less interested in investing or underwriting (for securities firms) in green bonds, in case if the sovereign government is the issuer. They are more interested in investing in or underwriting green bonds if issued by financial institutions (commercial banks, brokerage institutions or investment banks) or development banks (ADB, World Bank, and etc.). The reason might be that the investors seem to value the valuation and pricing/offering interest factors more so than valuing availability of collateral, historical performance or brand

association/familiarity. On the other hand, the authorities are sceptical of the development impacts of bonds issued by MDBs in the local market if denominated in US dollars, as they fear that this may accelerate an outflow of US dollars. Instead, the authorities indicated that they would welcome the local issuers tapping into international markets, since this may improve the corporate governance of the local issuers and therefore may have more development impacts in the long run. Nevertheless, it is unclear what difference this may make. The currency factor for the green bond issuance as well as environmental, social and governance (ESG) impacts are scored among the highest important factors of consideration.

Figure 8. Survey response – How likely do you think your company/organisation will invest or engage in green bond activities in the next 1-3 years?

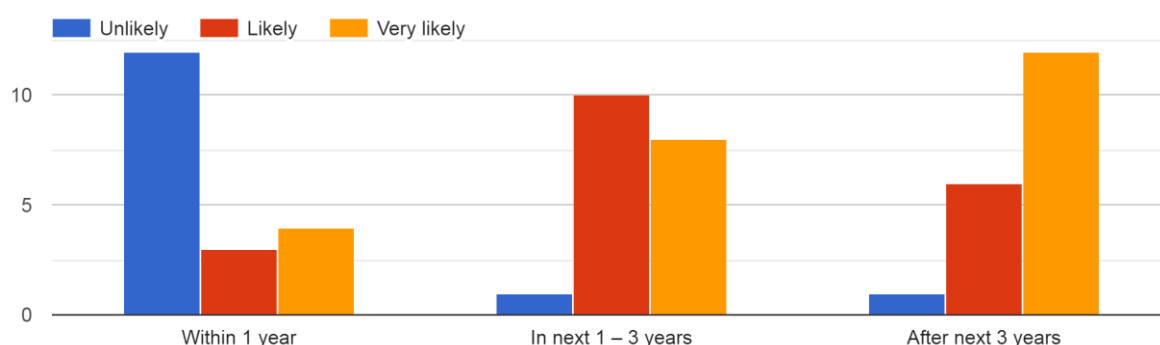


Figure 9. Survey response – Which issuer would you prefer to invest or underwrite (for securities firms) in green bonds in the next 3 years?

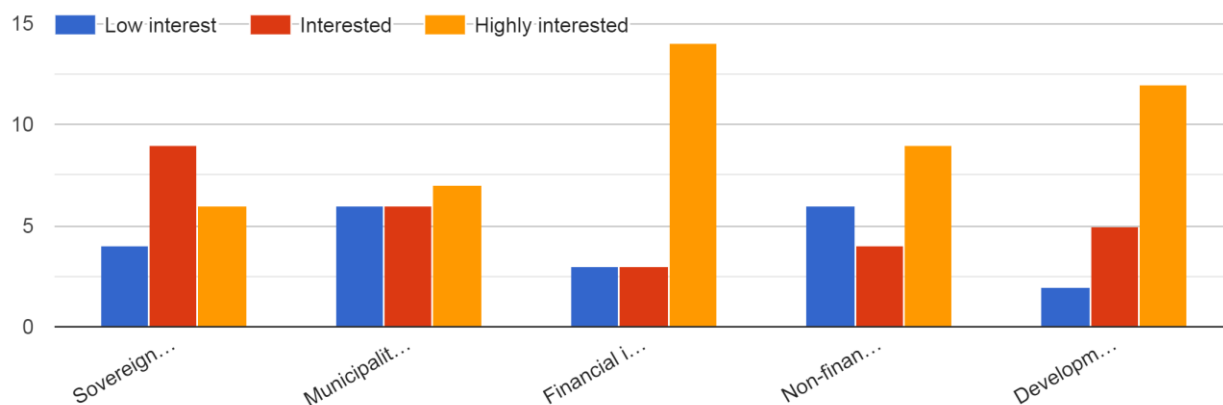
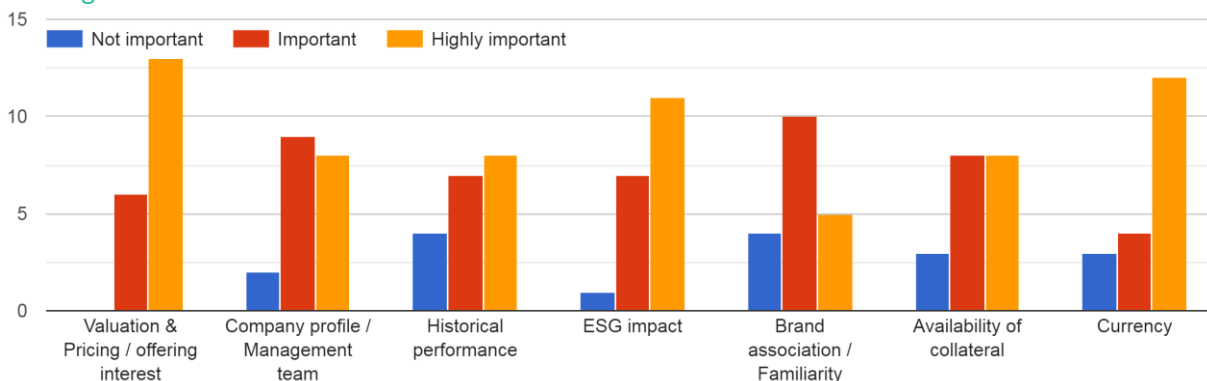


Figure 10. Survey response – When considering a green bond investment, how important is each of the following?



21. Two main actions that are most desired by the respondents for the green bond market to develop in the Kyrgyz Republic are: (i) policy clarity (standardization of “green” definition - Green Taxonomy, clear guidelines in green bond issuance, improved reporting framework, disclosure of green bonds); and (ii) development of market stakeholders (e.g. credit rating agencies, verification firms, and etc.). The respondents prefer more activities regarding capacity building and transfer of knowledge to local stakeholders (support pilot issuance, training, and etc.), rather than introduction of a separate exchange platform for green products. They do not see a major impact of COVID-19 on the development of the green bond market in the Kyrgyz Republic. The market has seen some debut issuance of thematic bonds, such as gender bonds, with some degree of evolving line of credits on ad-hoc basis provided from international partners. Nevertheless, the funding provided seem unsustainable and their sizes remain to be insignificant, while the subscribers have been mainly limited to individual investors (failed to mobilise international climate finance).

Figure 11. Survey response – From your point of view, which actions will be needed for the green bond market to further develop in Kyrgyz Republic?

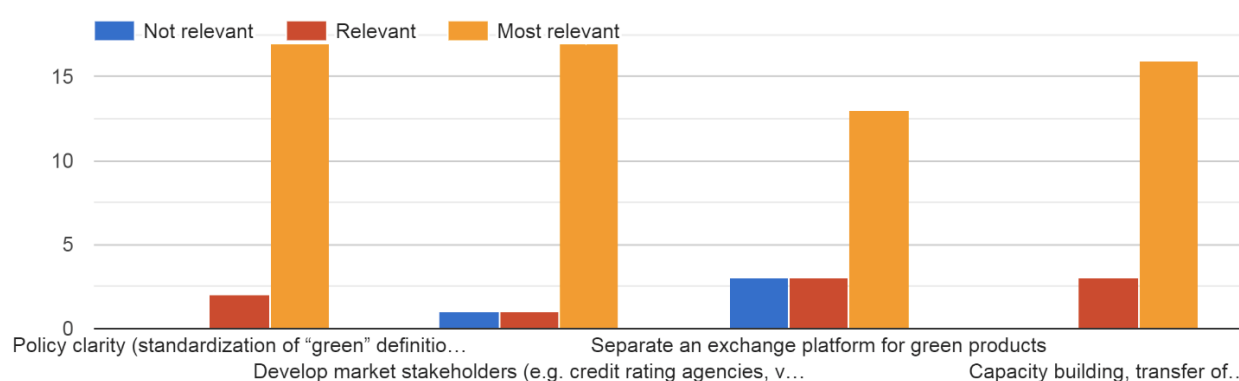
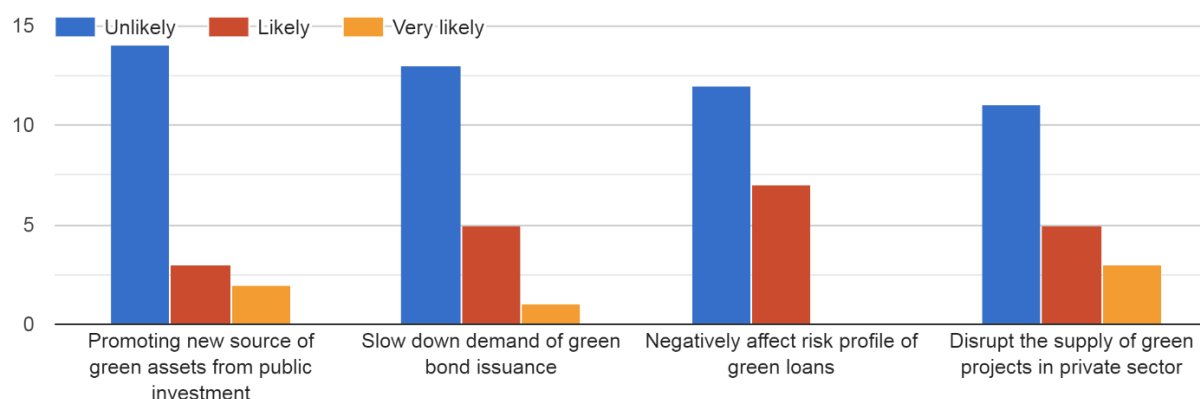


Figure 12. Survey response – In short to medium term, how likely do you think the COVID-19 will affect the following components on the development of the green bond market in Kyrgyz Republic?



Box 2. Survey response – Capacity Building and Training Needs

When were asked to respond freely in writing, many of the respondents emphasised on the needs of capacity building related activities:

Survey Respondent 1. We would like to learn more about profitability/maturity of green bonds and if this facility can be implemented in Kyrgyz Republic given unawareness/nonreadiness and lack of necessary institutional infrastructures of the Kyrgyz financial market? Capacity building is needed to train local

financiers the modalities of green investments in the Kyrgyz Republic. If institutional gaps must be filled in, how long this may take before first green bond issuance will be made in the Kyrgyz Republic.

Survey Respondent 2. Seminars on the issuance of green bonds would be interesting (adoption of policies, compliance with international and local standards, implementation of ESG) – translation from: “Интересны были бы семинары по выпуску зеленых облигаций (принятие политик, соответствие международным и локальным стандартам, внедрение ESG)”.

Survey Respondent 3. Due to the lack of experienced specialists within the country, as well as the existing Green Bond practices in the Kyrgyz Republic, comprehensive full training is needed on the implementation, mechanism, reporting, management of Green Bonds – translation from: “Из-за нехватки опытных специалистов внутри страны, а также существующих практик Зеленых облигаций в КР, необходимо комплексное полное обучение по внедрению, механизму, отчетности, управлению Зелеными облигациями”.

Survey Respondent 4. We need more capacity building.

Survey Respondent 5. We need training on green bond and benefits.

22. There is no systematic measuring, verification and reporting (MRV) practices, which are based on internationally recognised methodologies. None of the commercial banks is a signatory yet to global sustainable reporting initiatives, for example: the Principles for Responsible Banking (PRB).²⁴ It is recommendable for the major commercial banks and micro finance institutions to engage a qualified international consulting team to provide them on-the-job training on 4 core pillars of ESG disclosure standards²⁵: (i) Governance; (ii) Strategy; (iii) Risk Management; and (iv) Metrics & Targets, as well as on 4 core components²⁶: (i) Use of Proceeds; (ii) Process for project evaluation and selection; (iii) Management of proceeds; and (iv) Reporting. To prove their commitments, it is advisable for those financial institutions to co-fund related costs, which may be set as the conditions precedent for assistance to be provided by international and multilateral institutions. Green bond framework shall be developed for selected candidate issuer, which shall not include institution-specific technical requirements to select eligible green products for lending. Instead, such framework shall complement the nationally acceptable green taxonomy and associated list of green products in specific sectors. The responsible officers of the candidate organisations/institutions shall be familiarised with requirements of the upcoming disclosure standards being developed by the International Sustainability Standards Board (ISSB) of the International Financial Reporting Standards Foundation (IFRS) Foundation.

Table 2. Taskforce on Climate-Related Financial Disclosures (TCFD)'s disclosure pillars

<u>Governance</u>	<u>Strategy</u>	<u>Risk Management</u>	<u>Metrics and Targets</u>
Disclose the organisation's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy,	Disclose how the organisation identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where

²⁴ UNEP-FI. 2019. Principles for Responsible Banking. Geneva, Switzerland

²⁵ TCFD. 2017. TCFD Recommendations of the Task Force on Climate-Related Financial Disclosures. Basel, Switzerland

²⁶ ICMA. 2021. Green Bond Principles: Voluntary Process Guidelines for Issuing Green Bonds. Paris, France

	and financial planning where such information is material.		such information is materials.
--	--	--	--------------------------------

Table 3. ICMA's core components

<u>Use of Proceeds</u>	<u>Process for project evaluation and selection</u>	<u>Management of proceeds</u>	<u>Reporting</u>
The cornerstone of a Green Bond is the utilisation of the proceeds of the bond for eligible Green Projects, which should be appropriately described in the legal documentation of the security. All designated eligible Green Projects should provide clear environmental benefits, which will be assessed and, where feasible, quantified by the issuer.	<p>The issuer of a Green Bond should clearly communicate to investors:</p> <ul style="list-style-type: none"> • The environmental sustainability objectives of the eligible Green Projects; • The process by which the issuer determines how the projects fit within the eligible Green Projects categories (examples are identified above); and • Complementary information on processes by which the issuer identifies and manages perceived social and environmental risks associated with the relevant project(s). 	The net proceeds of the Green Bond, or an amount equal to these net proceeds, should be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the issuer in an appropriate manner, and attested to by the issuer in a formal internal process linked to the issuer's lending and investment operations for eligible Green Projects.	Issuers should make, and keep, readily available up to date information on the use of proceeds to be renewed annually until full allocation, and on a timely basis in case of material developments. The annual report should include a list of the projects to which Green Bond proceeds have been allocated, as well as a brief description of the projects, the amounts allocated, and their expected impact. Where confidentiality agreements, competitive considerations, or a large number of underlying projects limit the amount of detail that can be made available, the GBP recommend that information is presented in generic terms or on an aggregated portfolio basis (e.g. percentage allocated to certain project categories).

Policy Recommendations

23. Capacity building and institutional strengthening are among some of the most sought after activities by both the survey respondents as well as the stakeholders interviewed, to help improve fixed income market readiness in the Kyrgyz Republic. A comprehensive training needs assessment shall be conducted as the first step to identify gaps and future needs. Carefully designed study tours to innovative climate technology advanced nations may be beneficial, inviting public and private sector participants, including to the Republic of Korea (whereas the private sector participants may participate at their own expenses). The interviewed stakeholders acknowledge that there might be limited knowledge of the key benefits of green bonds, even so among the professional market participants. Training should not be limited to only help the stakeholders initially realise benefits of the fixed income market development in the country, but also that multiyear systematic training modules shall be developed and then carried out to make the market participants understand the importance of sustainability reporting as well as good corporate governance. Special attention shall be paid to systematic institutional strengthening of the CFC, which operates under direct supervision of the GCF's NDA. A specific legislation/law to be drafted to enable green public procurement, where long-term sustainability related cost-benefit analysis shall be taken into decision making consideration.

24. The country's first green taxonomy will need to be developed. This shall be a living document, reflecting on the evolving innovative climate technology improvements. The authorities are in the process of adopting the Kyrgyz Republic's first green taxonomy, but they indicated that they may need technical assistance. This green taxonomy shall be developed based largely on international²⁷ and regional²⁸ best practices, to facilitate future applicability. Technical assistance shall be provided by the international community who is mandated to support green transition of the country, such as GGGI. It is worth to note that the major lending institutions shall consider joining internationally accepted sustainability reporting mechanisms, such as the PRB, launched by the United Nations Environment Programme Finance Initiative (UNEP-FI) in September 2019. This shall help them align themselves with the overall society's goals as clearly expressed in the Paris Agreement (2015) and the United Nations Sustainable Development Goals (SDGs).²⁹ This may be costly at first, but a careful cost-benefit analysis may justify it in the longer run, with healthy return on initial investment, which was the case in terms of a pilot signatory commercial bank based out of Mongolia.³⁰

25. In addition to the green taxonomy, nationally acceptable country-specific green lending products shall be developed. Despite the current trend of individual banks being developing their own green lending products (mainly tailored towards improving their green images for marketing purposes), a list of green labelled innovative products shall be prepared and periodically renewed by a third party. It is important that such list of green products shall be universally accepted by all major lending institutions (including the MDBs who tend to open "green" credit lines with them). Independent verification party may or may not be accredited, because such recognition is often non-mandatory and therefore may be obtained on voluntary basis globally, as long as the issuance independently verified to be closely aligned with the Green Bond Principles (GBPs) and

²⁷ Council of the European Union. 2022. REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088. Brussels, Belgium

²⁸ Bank of Mongolia, Financial Regulatory Commission, Association of Non-Bank Financial Institutions, Ministry of Finance. 2019. Green Taxonomy of Mongolia. Ulaanbaatar, Mongolia

²⁹ UNEP-FI. 2019. Principles for Responsible Banking. Geneva, Switzerland

³⁰ Golomt Bank, Mongolia

the second party opinion is fully respectful in the eyes of the subscribers.³¹ Climate related financial disclosure guidelines are also made voluntary.³² But the key is to employ technically qualified international experts for impact reporting purpose (if not throughout the whole process from preparation to issuance and post-issuance obligations), who shall accurately calculate GHG reductions using acceptable methodologies. For the avoidance of doubt, such calculation shall exclusively be the only eligibility criteria for the participating lending institutions to provide their green lending products against, which needs to be clearly reflected in the issuer's green bond framework document. Similarly, this kind of independent review will need to be included in the green bond issuers' prospectus and published, and shall then be clearly communicated throughout roadshows. This is an important element to help avoid potential "greenwashing". The stakeholders indicated that the first step is to start with innovative green products supplied from within Korea by establishing an online platform offering wider varieties of innovative green products for public and private procurements. In this regard, it is recommended to explore government-to-government (G2G) dialogues between the responsible government agencies of the Kyrgyz Republic and the Republic of Korea. Once established, such platform may expand its coverage to list other innovative green products from both local and international suppliers. International and multilateral organisations (such as GGGI) may assist as a trusted broker.

26. It is important to have well-functioning DEAs, in order to effectively mobilise more climate finance in the future (particularly from GCF). The authorities would like to apply for a multiyear GCF readiness support to assess and then establish a green bond enabling framework in the country, for which it is desired to have a qualified DEA engaged throughout the whole implementation process (rather than relying on international accredited entities).³³ Accreditation support to those DEA candidates is necessary. This shall be provided with financial and technical support from international and multilateral organisations, who are mandated to support the country in this regard, including the GGGI. Nevertheless, such assistance should take into consideration the GCF's current trajectory of piloting project-tied accreditation process, but not direct accreditation of stand-alone entities. Suitable mitigation and adaptation project pipelines may be developed and prioritised using comprehensive cost-benefit analysis for each of those existing 2-3 candidate DEAs according to the UNFCCC's guidelines³⁴, involving a delivery partner. Step-by-step assistance may include: (i) Capability assessment of the NDA-nominated entities for GCF accreditation process; (ii) Gap Assessment and Action Plan developed for the DAE candidates (including reviewing of GCF accreditation requirements on fiduciary standards, Environmental and Social Safeguards and Gender policies); (iii) Implementation of the action plan (to be developed following the gap analysis); (iv) Prepare and re-submit accreditation applications to the GCF; and (v) Development of standard operating procedures necessary for GCF engagement between national stakeholders and Accredited Entities with a focus on project preparation, DAE nomination, and proposal no-objection, within the country context of Kyrgyz Republic.

27. To accelerate development of green project types of bonds market, it is very important that the prioritised pilot projects will need to be fully backed by bankable feasibility studies, which will need to be acceptable to the international and domestic funding agencies. A respondent mentioned to the surveyor that the project developer opted for a local team to do the feasibility study, thanks to their low cost offer. The respondent financing institution may, therefore, become unsure of the reliability of the technologies suggested in the feasibility study. This concerned a major green infrastructure development project with a lifecycle of at least 25-30 years with considerable residual value beyond. This may be regarded as a not-do-do example

³¹ ICMA. 2021. Green Bond Principles: Voluntary Process Guidelines for Issuing Green Bonds. Paris, France

³² TCFD. 2017. TCFD Recommendations of the Task Force on Climate-Related Financial Disclosures. Basel, Switzerland

³³ MONRETS. 2022. Nomination of GGGI as the Delivery Partner for Kyrgyz Republic's GCF Readiness Support, namely: Mobilising Domestic and International Climate Finance and Private Sector Investments in Kyrgyz Republic" 28 September 2022, Bishkek, Kyrgyz Republic

³⁴ UNFCCC. 2011. UNFCCC Assessing the Costs and Benefits of Adaptation Options: An Overview of Approaches. Bonn, Germany

in the future, because innovative climate technical selection is the key to success; and therefore, the climate finance institutions are obliged to be comfortable with the suitability of technology choices for this kind of long term projects. Economic viability in those bankable feasibility studies shall be carefully analysed taking into consideration incremental and non-incremental costs and benefits, expressed in economic net present value (ENPV) and economic internal rate of return (EIRR). According to the survey respondents, (i) renewable energy, (ii) sustainable agriculture (e.g. organic farming, low-carbon cultivation, and etc.), and (iii) water (e.g. water supplies, waste-water treatment, etc.) topped as the sectors that are the most potential for green bond issuance in Kyrgyz Republic, within the next 3 years. These 3 sectors shall be prioritised for the development of nationally acceptable platform of green products. Similar to the issuance of trial use of proceeds type of thematic bonds in the past (gender bond), a green project type of bonds may be piloted for local and/or international issuance.

28. The market participants often confuse the green bond framework with their existing onlending facilities with green sources of finance. This further necessitates prioritisation of green project type bond issuance, over other types. Anchor investors may include MDBs and other institutional investors who are familiar with the country specific risk profile. An assessment of candidates' readiness for issuing green bonds in domestic and international markets will need to be carried out, using prior-approved selection criteria. In absence of prominent underwriters who offer familiarity with the current state of international ESG investors' appetite, and if partially committed financially by the candidate issuer(s), an internationally competent consultant team will need to be engaged to provide on-the-job training to the responsible officials of those candidate issuer(s) throughout the whole process from selection of eligible assets to drafting of operations manuals (OM), internal evaluation, financial and technical due diligence, improving management competence, restructuring, prospectus writing, roadshows, and closing. The process should also include setting of the post-issuance obligations and related MRV.

29. Currently, the readily available guarantee schemes in the Kyrgyz Republic may not be permitted to cover corporate bonds. It may be worth exploring potential of expanding this guarantee coverage to some selected corporate bonds that are 100% tied to the government's prioritised climate projects at the national and subnational levels. Related other derisking mechanisms may be explored, including insurance. Effective PPP schemes need to be introduced, within the newly adopted law.³⁵ As for the energy sector, responding to further worsening of water shortage in the downstream regions and nations, and also to solve the immediate pressing problems of electricity shortage during the peak hours in the short-run, the authorities may need to explore battery energy storage system (BESS) solutions. This will help reduce expensive imports of electricity from neighbouring countries while boosting the country's energy independence, or such projects to be financially and economically viable. Green bonds tend to be traded favourably in the secondary markets with increased supply of ESG dedicated capital, which may allow earlier exits for the subscribers as soon as the market is convinced with manageable risks once the project has been commissioned – much more comparable to that of conventional brown bonds. Additionally, floating solar solutions will need to be promoted, in order to effectively utilise some of the existing reservoirs. It is unfeasible for those energy sector SOEs to continue to be 100% reliant on cheap funding from the MOF – with unconditional and irrevocable sovereign guarantees. This is particularly true as the country nears its debt ceilings, yet on the other hand, there are many other development needs awaiting to be funded. In terms of climate adaptation project development, it is important to follow top-down and bottom-up approaches³⁶ that are science-based.³⁷ For instance, a science-based FSC certified sustainable forest management projects may be promoted alongside establishment of long-term viable

³⁵ Government of the Kyrgyz Republic. 2021. Law on the Public-Private Partnership. Bishkek, Kyrgyz Republic

³⁶ UNFCCC. 2012. Least Developed Countries, The National Adaptation Plan Process: A Brief Overview. Bonn, Germany

³⁷ UNFCCC. 2011. Initial guidelines for the formulation of national adaptation plans by least developed country Parties (FCCC/CP/2011/9/Add.1). Bonn, Germany

agriculture value chains. Water related climate adaptation initiatives are needed to be implemented to prevent vulnerable communities from being exposed to natural disasters, while improving the local capacity to predict and forecast future weather events. This is an important element of improved early warning systems. Such climate mitigation and adaptation projects/programs may be prioritised for credit guarantees, which may have a catalytic development impact in terms of attracting various types of blended international climate finance. They may also be qualified for debt-for-nature swap transactions.

30. This assessment is not a roadmap. Following this assessment, a more comprehensive analysis needs to be conducted engaging all key stakeholders. It shall be a broader roadmap to accelerate overall green bond market development in the Kyrgyz Republic. It may be funded by international and multilateral organisations, with possible co-funding provided from market participants (or candidate issuers) to show their commitments. This shall be accepted by all key stakeholders through a thorough consultation and then regarded as the way forward. Various workshops will need to be organised consisting of all key stakeholders to provide systematic knowledge using prior approved training modules, similar to the 1-day workshop previously organised by the GGGI in December 2022.

31. We encourage this assessment to be conducted on annual basis, to allow time-series comparison of key market indicators as they evolve over time.

Annex. Survey Questionnaire

Kyrgyz Fixed Income: Green Bond Market Survey - GGGI & G-PASS

Welcome to Kyrgyz investor survey for potential of Green Bond Market Readiness.

The objective of the Survey is to assess the appetite of local investors and international financial institutions to green bond issuance in Kyrgyz Republic. Following GGGI's 1-day workshop on thematic bonds (organised for all key stakeholders in Bishkek city on 01 December 2022), the survey aims to explore potential market drivers, existing barriers as well as priorities to accelerate the investment in green bonds in Kyrgyz Republic. Furthermore, this market survey will help outline the market preferences from financial institutions regarding green investments and will serve as basis to incorporate GGGI's works in the piloting of green bond issuance in Kyrgyz Republic. We expect that this survey should take no more than 5 minutes of your time.

Please answer "yes" at the end of this survey (Question-C.2.) and provide your email address (Question-C.3.), if you want to receive survey report/short narratives constructed summarising the findings of this survey.

Important: Your provided personal information will be handled subject to applicable internal policies of GGGI/G-PASS, as may be amended from time to time.

*The Global Green Growth Institute (GGGI) is a treaty-based international, inter-governmental organization dedicated to supporting and promoting strong, inclusive and sustainable economic growth in developing countries and emerging economies: www.gggi.org

*The Korea G-PASS Company Export Association (G-PASS) is a government association under the Public Procurement Service (PPS) of the Ministry of Economy and Finance (MOEF) of the Republic of Korea: www.koreagpass.or.kr

*GGGI and G-PASS signed a partnership agreement governing a number of joint activities, including this market assessment in Kyrgyz Republic.

Name of Your Company/Organisation:

Your Position in your Company/Organisation:

Owner / Executive / C-level (CEO, CFO, CIO...)
Senior management
Middle management
Specialist

A. OVERVIEW:

A.1. Which Business/Activity does your Company/Organisation engage on?

Brokerage firm (Securities company)
Commercial bank/Investment bank
Development Financial Institution
Development Organisation (bilateral, multilateral or international organisation)
Insurance Company
Professional services firm
Verification firm (rating agency)
Micro credit lending institutions
Policy maker (government ministry, regulatory body or stock exchange)

A.2. What is your Company/Organisation's total assets under management (AUM) or market capitalization (if applicable) as of 31/12/2022?

Below US\$ 10m
US\$ 10 million – US\$ 50 billion
US\$ 50 million – US\$ 500 million
Above US\$ 500 million
Not applicable

A.3. Which best describes the interest/status of your Company/Organisation engaging in green financial instruments (e.g. green bonds, green loans...)?

Our company/organisation is NOT interested in green instruments at this stage
Our company/organisation is in the early stage, with limited awareness
Our company/organisation is fully aware of Green financial instruments, and is developing an action plan
Our company/organisation is mandated with set annual target(s)
Our company/organisation has already established specific green bond funds/portfolio
Other

A.4. Which of the following sector(s) is currently the most significant in your green investment portfolio (or currently your Company/Organisation is advising your clients in)?

Renewable energy
Energy efficiency (energy saving)
Water (e.g. water supplies, waste-water treatment...)
Clean transportation (e.g. public transport, e-mobility...)
Sustainable agriculture (e.g. organic farming, low-carbon cultivation...)
Green buildings
Solid waste management
Others (please specify)
Not having any in our portfolio

A.5. What is the optimal deal size that your Company/Organisation is looking for in each project?

Below US\$ 10m
US\$ 10 – 50 m
US\$ 50 – 100 m
Above US\$ 100m
Other (please specify)

A.6. What is your key driver to seek for investments in green bond (or for you to explore green financial instruments)?

Options	Not relevant	Relevant	Most relevant
To attract green and climate funds (or to access global funds)			
Generate excess return (alpha)			
Diversify the investment portfolio			
High transparency as a result of increased disclosure requirements			
Improve the green image of the organization			
Sustainable development embedded in the organization's investment strategy			
Mandated/Requested/Demanded by the investor			
Perceived to be more stable and liquid even in market down turns			
Other (please specify)			

A.7. From the investor perspective, what are the main obstacles that you think are preventing you from investing in green bonds?

Not clear benefits of green bonds as opposed to conventional bonds
Absence of policy guidance related to green bonds;
Lack of internal guidance for such type of investment;
Lack of project pipelines and interested issuers
Higher risk inherent in green bonds
Others (please specify)

A.8. Within last 12 months, did you receive any request from your current/prospective clients about issuing green bond?

Options	We did not receive any request	Some requests received (1 – 3 requests)	A lot of requests received (more than 4 requests)
Renewable energy			

Energy efficiency (energy saving)			
Water (e.g. water supplies, waste-water treatment...)			
Clean transportation (e.g. public transport, e-mobility...)			
Sustainable agriculture (e.g. organic farming, low-carbon cultivation...)			
Green buildings			
Solid waste management			
Others (please specify)			

B. MARKET OUTLOOK

B.1. Rank the main policy mechanisms that would encourage you to invest in green bonds (Select the top 3):

Standardization of the “green” on applicable projects (Taxonomy)
Mandatory disclosure of activities/of results
Independent reviews of green bonds issuance framework
Tax incentives/subsidies for green bond investors
Preferential treatment of low-carbon assets
Penalization of high-carbon assets
Green mandates for bond investors
Promoting ESG reporting on stock exchanges
Demand from your stakeholders
Others (please specify)

B.2. In the next 3 years, what sector do you see with the most potential for green bond issuance in Kyrgyz Republic (Select the top 3)?

Renewable energy
Energy efficiency
Water (e.g. water supplies, waste-water treatment...)
Clean transportation (e.g. public transport, e-mobility...)
Sustainable agriculture (e.g. organic farming, low-carbon cultivation...)
Green buildings
Solid waste management
Others (please specify)

B.3 Which issuer would you prefer to invest/or underwrite (for securities firms) in green bonds in the next 3 years?

Options	Low interest	Interest ed	Highly interest ed
Sovereign (government)			
Municipality (provincial government)			
Financial institution (commercial banks, brokerage institution, investment banks)			

Non-financial institution			
Development bank (ADB, World Bank, VDB...)			
Other issuers (please specify)			

B.4. How likely do you think your company/organisation will invest or engage in green bond activities in the next 1-3 years?

Options	Unlikely	Likely	Very likely
Within 1 year			
In next 1 – 3 years			
After next 3 years			

B.5. When considering a green bond investment, how important is each of the following?

Options	Not important	Important	Highly Important
Valuation & Pricing / offering interest			
Company profile / Management team			
Historical performance			
ESG impact			
Brand association / Familiarity			
Availability of collateral			
Currency			
Others (please specify)			

B.6. From your point of view, which actions will be needed for the green bond market to further develop in Kyrgyz Republic?

Options	Not relevant	Relevant	Most relevant
Policy clarity (standardization of “green” definition, clear guidelines in green bond issuance, improved reporting framework, disclosure of green bonds ?)			
Develop market stakeholders (e.g. credit rating agencies, verification firms, ...)			
Separate an exchange platform for green products			
Capacity building, transfer of knowledge to local stakeholders (support pilot issuance, training...)			
Others (please specify)			

B.7. In short to medium term, how likely do you think the COVID-19 will affect the following components on the development of the green bond market in Kyrgyz Republic?

Options	Unlikely	Likely	Very likely
Promoting new source of green assets from public investment			
Slow down demand of green bond issuance			
Negatively affect risk profile of green loans			

Disrupt the supply of green projects in private sector			
Others (please specify)			

C. END OF THIS SURVEY:

C.1. Do you have any final comments regarding the green bond issuance? What are the areas, on which do you want GGGI/G-PASS to provide future training/workshops in the future in Kyrgyz Republic concerning green bonds?

C.2. Do you want to receive survey report/short narratives constructed summarising the findings of this survey by email?

Yes
No

C.3. Your email address (if you answered "yes" in the Question-C.2. to receive survey report/short narratives constructed summarising the findings of this survey):



The Global Green Growth Institute

19F Jeongdong Building, 21-15, Jeongdong-gil,
Jung-gu, Seoul, Korea 04518

Follow our activities on Facebook, Twitter, LinkedIn and YouTube.



www.GGGI.org

