

ROADMAP:
Actions to establish a market for

Bonds Green

In colombia

in association with

The Roadmap has been developed to support the Colombian Government and especially the Management Committee. SISCLIMA Financial Committee, made up of various entities and led by the National Department of Planning (www.finanzasdelclima.co), in understanding the potential of green bonds as an instrument funding programs and projects that lead green growth and development compatible with the climate in Colombia, and undertake actions for the development of a successful market of green bonds in Colombia.

The document has been developed by E3 - Ecology, Economics and Ethics and Metrix Finance, in partnership with PwC UK and Climate Bonds Initiative. It has been funded by the Climate and Development Alliance (CDKN), and coordinated and edited by E3 - Ecology, Economy and Ethics.

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PRESENTATION

Colombia is designing the policy and strategies necessary for the transition to a green and low carbon economy

Green growth has been included as part of the objectives of the National Development Plan and currently in mind, there is the “Green Growth Mission”, which seeks to outline the path to achieve consolidation of the transformations that the country requires in terms of sustainable development, by defining the goals, policies, necessary strategies, which in turn are articulated with the global Development agendas Sustainable and the Paris Agreement.

Significant investments of money are required to achieve this transformation development in a green and inclusive

There is no complete estimate of what the transition to a green economy may cost, as this depends on It will depend on the goals proposed as a result of the policies and strategies outlined by the Mission of Green Growth. However, the country made progress in estimating the costs of implementing the national contributions to the Paris Agreement and as a result it is known that it will be necessary to profit from different economic, political and social actors to promote green projects in different areas, in order to achieve the required dynamics and levels of money flows. The use of instruments innovators such as green bonds is very important to involve the capital market in depth.

For the green bond market to become established and grow, it is necessary to develop a series of instruments and promote dynamics that allow the barriers that exist to achieve this objective to be removed.

Bancolombia issued the first green bonds in the country at the end of 2016, in a supported effort by international development banking. Then Davivienda did it at the end of April 2017, in the same

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Bancolombia scheme. For the country to not only have two successful cases, but a vigorous market, it is necessary to establish a series of instruments that establish the foundations of the market and that underpin the next stage, which is a dynamic and sustained growth in green bond issues. The route consists of a series of actions to establish these bases, and from there promote strategies to the growth of the green bond market.

This is the second in a series of three documents developed by E3 - Economics, Ecology and Ethics, METRIX - Finance, in association with PwC UK and Climate Bonds Initiative, on the development of a green bond market in Colombia

They intend to support the Colombian government and possible entities interested in issuing certificates. us green to understand the potential of this instrument, for which the first document was developed of "Evaluation of the Potential of a Successful Green Bond Market in Colombia", and a "Case Study Theoretical for the Issuance of green bonds ". Together with this roadmap, the three documents are intended to encourage public and private entities to explore the possible issuance of bonds that benefit programs and green projects in Colombia.

Structure of this document

Chapter 1 is a quick review of the current landscape for developing the market.

Chapter 2 describes the main challenges and barriers to establishing the market in the country.

Chapter 3 presents the actions that make up the roadmap to establish the market foundations, and from there to promote strategies for a vigorous and sustained growth of the green bond market in Colombia.

two

RESUME

EXECUTIVE

The current outlook for market development

Colombia promotes the policy of green growth and climate change, which creates a favorable environment for the investments that need to be made for this transition. Today it is known that large investments in terms of climate change have come mainly from the public sector with orders of magnitude close to 1.4 and 2.1 billion pesos annually between 2011 and 2013¹. It is estimated that by the year 2030 approximately 57.8 trillion pesos will be needed to carry out the NDC related to the mitigation of greenhouse gases, which represents an investment close to 3.18 trillion annual pesos². The DNP estimates that in the long term 62% of investments should come from the private sector and 38% of the public sector, evidencing the importance of involving the private sector. I do not know yet has estimated what the transition to a green economy may cost, as it will depend on the goals that look at green growth policy, and climate change is only part of the priority areas.

On the other hand, the bond market is underdeveloped in Colombia, compared to other countries of Latin America, the main issuer being the National Government³ (82.9% of the debt market in the country). The low development is due to the high concentration of issuers and the limited appetite of investors. It First, it is the result of the high costs associated with an issuance compared to bank loans. rivers; while the latter occurs due to the fact that institutional investors in Colombia are limited They are regulated and regulated in their investments, which discourages risk taking. There is an appetite for bonds However, as a consequence of the profitability required of them by regulation, they demand

¹ Executive Summary of the DIAGNOSIS OF FINANCIAL SOURCES AND NEEDS, COLOMBIAN FINANCIAL STRATEGY- CLIMATE MENT. Financial management committee of SISCLIMA, CDKN and Econometría Consultores 2016, pp 7. It can be consulted at: http://www.finanzasdelclima.co/Documentos/Julio2016/ANEXO_1_DIAGNOSTICO_DE_NECESIDADES.pdf

² Estimate figure presented during the 2016 climate finance event. Estimate is not yet an official figure.

³ Source: BanRep Public Debt Report December 2016 and the Colombian Stock Exchange.

They give securities with credit ratings above AA +. This then restricts access to finance through the capital market for companies that do not meet these credit rating levels, and at the same time, it restricts the liquidity of the market. In particular, to issue a green bond it is not necessary to issue special regulation, the existing framework is sufficient to develop this specialized segment of the capital market, but it must be taken into account that green bonds will operate, at least in the market internal fall, with the same barriers that an ordinary bond can have.

Colombia has tax incentives for investment in the environment and they were recently approved tax incentives for non-conventional renewable energies. Project developers They can access discounts on VAT and income for the type of investments subject to these discounts. Also- A reduction in withholding tax is also available for foreign investments that exceed one year, from 30% to 15%, which should be promoted among foreign green bond investors.

The potential of green portfolios in three types of entities was reviewed: companies in the real sector, cities and national development departments and banks. The key feature of this review is that it deals with entities that can autonomously issue a green bond because they have assets that classify They are in accordance with the Climate Bond Standard (CBS) and have a financial situation that allows to foresee that potentially would be rated higher than AA +, or currently already have this rating in ordinary bond issues. It was found that there is an average portfolio size in these entities. of more than US \$ 50 million and that even in those that already issue ordinary bonds it is possible to explore the possibility of marking these issues as green, backed by the assets and projects that they classify.

Barriers and challenges for the creation and expansion of the green bond market

The following barriers were encountered in creating a green bond market in Colombia: 1) a low level of knowledge and appropriation of the topic among the different market players and few examples demonstrative so far (Bancolombia and Davivienda); 2) although it is true that progress has been made in nitions of the typology of projects for climate change, the definition of green investment for the country, together with its categories and subcategories is pending. This definition should be aligned with the growth policy green mentoring and NDCs. In addition, to attract international and some local investors, it will be necessary achieve compatibility between the typology of projects of the recognized green bond standards and the one that is defined internally low climate change and green growth policies; 3) it is required to identify in a per-maintain green portfolios to guarantee supply in the market; 4) there are tax incentives for investment environmental and non-conventional renewable energy, but investment categories are limited. Once i know define the green growth policy should be made an alignment of the type of investment to stimulate and the glamentation of tax incentives. It was also found that their approval processes they can be long and cumbersome; 5) the governance instance to drive the market requires having a representativeness of all the actors, since currently investors are not participating, the sector real, the regulatory authorities of the capital market, the Colombian Stock Exchange and some unions and associations that can replicate knowledge; 6) the local verification firms do not know the standards dares and methodologies to mark a bond as green and therefore if an international service is used, transaction costs increase; 7) there are no follow-up and monitoring mechanisms for investments nor a definition of standard indicators by project typology, something essential to report to The investors; 8) it is necessary to disclose ways of managing the use of the resources captured by emissions of bonds and methodology to make a transparent follow-up of money movements to report to investors; 9) ensure that in the long term, there are innovative financing instruments complementary to green bonds, as this preferred instrument is used to refinance assets.

Barriers and challenges encountered in the capital market

As indicated, green bonds also experience barriers that originate in the capital market. They are Colombian, just like ordinary bonds. The main ones are: 1) unbalanced market liquidity Colombian banking system, which limits the development of the debt market in the country 2) the high costs of issuance and complex processes, even for recurring issuers and for issues in the primary market, despite the simplifications that the government has made in the last two years; 3) the concentration of the

demand for securities with a credit risk rating higher than AA +; 4) the exchange rate risk for Foreign investors; 5) the low liquidity of the secondary market, which makes price formation difficult and availability of securities for investors.

Main actions of the roadmap

Phase I: Laying the foundations of a green bond market: 1) Actions are about building capacity among market players and outreach for an appropriation of the issue; 2) create a guide to help define green projects and their portfolios; 3) define and include a guide on how to manage resources captured and reporting models to investors; 4) permanently support the formulation of green portfolios; 5) have an information platform on green bonds, which can be hosted on Climate Finance; 6) establish a permanent dissemination strategy on progress on the subject; 7) establish a guide on how to monitor and follow the projects. Define simple quantitative indicators or qualitative by type of project; 8) ensure the development of innovative financial instruments complementary to green bonds.

Phase II: Expand the market: 1) have demonstration cases of emissions with different types of issuer and investors; 2) promote the exchange hedging market with financial agents; 3) establish alternative funds to encourage the issuance of securities with ratings below AA +; 4) encourage the demand for secondary market securities with additional regulations that ease restrictions in the management of portfolios of financial entities.

3

THE CURRENT LANDSCAPE FOR DEVELOPMENT FROM THE MARKET

As a precursor to the actions to be proposed in the roadmap, this chapter is dedicated to pre-set the current scenario in Colombia for the development of the green bond market, indicating the framework current policy and investment for a transition to a green economy, market conditions of bonds in the country, enabling conditions and a first exploration of the potential of green portfolios in the country.

3.1 Policy and investment framework for a transition to a green economy

The country's policy framework and international commitments favor the transition towards a development Green and climate compatible roll. Colombia is committed to driving green growth as part of its development plan and in line with Colombia's entry into the OECD. For this, Colombia is leading a Green Growth Mission prioritizing the ability to adapt to change climate, land productivity, preservation of natural resources, land productivity and quality, and renewable energies. The country also has long-term goals to face climate change, which are reflected in the Expected and Determined Contributions (NDC) of the Paris Agreements, and has commitments to the global sustainable development agenda.

Climate change management has received a significant boost in policy and institutional development. SISCLIMA was established as a governance framework for climate management and different strategies and plans that support the national climate change policy: the National Plan for Adaptation to Change Climate, the Colombian Strategy for Low Carbon Development, the National Strategy for the Reduction of Emissions from Deforestation and Forest Degradation - REDD +, the Financial Management Strategy before Disasters, the Law that ratifies the Paris Agreement on climate change for Colombia, the restriction to use of plastic bags (Resolution 668/2016) and the carbon tax by law 1819/2016. Framed Within the National REDD + Strategy there is also the *Amazon Vision* strategy , which is a

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voluntary commitment of the country aimed at reducing deforestation in the Colombian Amazon to zero by 2020.

Colombia's transition to a green and climate-compatible economy requires strong capital lumens. The Colombian economy is highly dependent on the exploitation of resources natural, especially non-renewable (DNP - Global Green Growth Institute, 2017). Although thanks to These activities have significantly improved social indicators (Sustainability Week, 2017), The truth is that recent extreme weather events and the growing resistance of communities These extractive projects show that this model has its limits. On the other hand, there are dynamics of sustainable urban growth in the country, involving more and more cities in green projects and of climate change. Although Colombia has an energy generation matrix based on hydropower, the challenge of water management in the future due to climate change led to thinking about the diversification of sources towards non-conventional renewable energies and energy efficiency.

The population and infrastructure have been badly hit by extreme weather events, leading to local authorities to a new level of awareness of the risk posed by climate change. The Agriculture in Colombia is already being affected by scarcity of the resource or floods, in different places of the country, leading to intensify investments in irrigation and drainage and to consider how to adapt crops to the variation of temperatures. All these dynamics are driving green investment in Colombia.

Although there is currently no estimate of what the growth targets may cost the country, green foundation, since they will be established once the policies, strategies and reforms are established proposed by the National Government, based on the Paris Agreement, estimates have been made of the versions that would be necessary to implement the national contribution determined in mitigation, the which is estimated at approximately 57.8 trillion pesos by 2030, which represents an investment close to 3.18 trillion pesos per year . Additionally, the financial needs associated with the four strategies that frame the national climate change policy , represent orders of magnitude of between 0.08% and 0.29% of the country's total GDP by 2020, which could increase between 0.43% and 0.98% by 2025 .

Today it is known that large investments in climate change have come mainly from public sector with orders of magnitude close to 1.4 and 2.1 billion pesos annually between 2011 and

2013 . The DNP estimates that in the long term 62% of investments should come from the private sector and the 38% from the public sector, evidencing the importance of involving the private sector.

3.2 Characteristics of the Colombian bond market

The Colombian bond market is underdeveloped, the main issuer being the National Government.

The bond market in Colombia represents only 6% of GDP compared to 34% of the average of the main economies in Latin America. (Santamaría, 2015). It is important to note that the largest issuer of bonds is the National Government with public debt securities (TES) to finance

⁴ Estimate figure presented during the 2016 climate finance event. Estimate is not yet an official figure.

⁵ National Plan for Adaptation to Climate Change; the Colombian Strategy for Low Carbon Development; the National Strategy of REDD + and the National Disaster Risk Management Plan.

⁶ Executive Summary of the DIAGNOSIS OF FINANCIAL SOURCES AND NEEDS, COLOMBIAN FINANCIAL STRATEGY-CLIMATE MENT. Financial management committee of SISCLIMA, CDKN and Econometria Consultores 2016, pp 4. Available at: http://www.finanzasdelclima.co/DocumentosJulio2016/ANEXO_1_DIAGNOSTICO_DE_NEEDSIDADES.pdf

⁷ Idem

eleven

the National Treasury, which make up 82.9% of the debt market in the country . In private debt, that is that issued by private entities, on the other hand, the largest issuer is the financial sector, which between 2010 and 2015 issued 73% of the debt in this period, and the real sector the remaining 27%. Some of the reasons why which the private bond market is mainly concentrated in the financial sector, are the facilities the real sector has to access medium-term financing in the banking system. Additionally, accessing the capital market for companies in the real sector implies additional costs, deadlines of extended issuance and a limited number of investors, which discourages their participation in it. The high liquidity of the banking sector, together with the aforementioned aspects of the capital market, have not allowed for complementarity to develop between these two systems.

Finally, the debt market in Colombia is underdeveloped due to the high concentration of issues, sores and the limited appetite of investors. The first is the result of the high associated costs to an issue compared to bank loans; while the second occurs because institutional investors in Colombia are limited and are regulated in their investments, which discourages risk taking. For this reason, the government has taken steps to regulate aimed especially at recurring issuers and in defining the actions to be taken to promote capital market development. It is important to note that the regulation for the process issue of a bond is defined, so it is not necessary to expand the legislation in the case of green bonds.

The potential investors of green bonds are the National Pension and Severance Funds, national and international investors who have green investment mandates. The main investments Zionists in Colombia are the Pension and Severance Funds, which are four authorized funds. These invest 13% of their portfolios in bonds issued by the real sector and the financial sector, and 35% in TES (Titles of the Treasury of the Nation) . The investment portfolios of the fiduciaries, on the other hand, are they put 6% of private debt securities in - financial, real sector, and multilateral organizations. There is an appetite for ordinary bonds, however, as a consequence of the profitability that is required of them. By regulation, they demand securities with credit ratings higher than AA +. This then restricts access to financing through the capital market for companies that do not meet these levels credit rating, and at the same time, restricts market liquidity forming a vicious circle that slows the development of the private debt market in the country.

The share of the private debt bonds of the mandatory and voluntary pension funds is of the 2% of the portfolio value and 11% for financial sector bonds. This corresponds to a total amount of \$ 27,633 million pesos for December 2016 . There is then a space in the portfolios of the investors that could be transferred to the potential green bond market.

At the international level, there is a broad base of investors specialized in green bonds, whose ex-Additional expectations for performance and credit rating are the alignment of the issuance with standards international standards, a high level of transparency supported by a verifying agent and the disclosure of environmental impacts of the investment. International investors do not want to take the risk of change issues in national currency and require high credit ratings. Colombia in its profiles of ordinary bond issues present ratings higher than those of most countries in

Latin America, but its emission sizes are smaller than average.

⁸ Source: BanRep Public Debt Report December 2016 and the Colombian Stock Exchange.

⁹ Superfinancial

¹⁰ Idem.

¹¹ Idem.

There are few common bond issuers in the financial and real sector and potential to be explored in emissions from territorial entities.

Excluding Colombian public debt dedicated to financing of the national treasury, represented in the TES, the financial sector has approximately the same number of issuers (22 financial institutions) than the real sector (21 companies), in the period 2010 - 2015 ⁸. In the two sectors, financial and real, you see the recurring issuers that achieve ratings AA + or AAA which are bought mainly by pension funds and insurance companies. On the real sector, there are recurring issuers in large entities with high levels of solidity financial companies such as Cementos Argos, Emgesa, EPM, Codensa and Terpel.

There is a group of companies, cities and departments in Colombia that, having good financial profiles, rivers and green portfolios do not issue this type of instrument due to the processes and costs that are necessary carry out to achieve it. These companies and territorial entities may have potential in the future to green emissions. Some of those identified are: Ingenio Incauca, Ingenio Providencia, Grupo Daabon - CI Biocosta, Ingenio Risaralda, Ingenio Mayagüez, Alpina, Municipality of Barranquilla, Municipality of Bucaramanga, Department of Atlántico, Department of Antioquia, Department of Cundinamarca, Department of Santander, Bogotá DC, among others.

3.3 Enabling conditions for the market and potential of green portfolios

No regulatory, policy or tax barriers have been identified, representing a significant obstacle meaningful for the market.

Tax compensation for investments in the environment and reduction of tax rates for foreign investors facilitate the development of a market of green bonds. Regarding the compensations of environmental regulation and renewable energies, no conventional, their application and accessibility can be improved. This is one of the frequent requests from those who They want to apply them, since they perceive excess processes and lack of definition in the typology and investments that can be applied to these reductions in the taxation of VAT (Value Added Tax) and rent. The regulations for reducing withholding at the source of foreign investment that remains more than a year in the country should be more widely publicized internationally.

Colombia can benefit from the presence of financial market institutions, particularly banks and credit rating agencies, which have a significant body of knowledge and experience in green bonds. This knowledge, however, occurs at the level of the international teams of these firms and not at the level of human resources that are in Colombia. For the development of the green bond market in the country, a rapid transfer of knowledge and skills to national teams is required when the first signs of evolution of the green bond market are given. These entities should be encouraged to become more committed to raising awareness and developing the market.

A base of green assets and green projects is established, which can make up the portfolios

green companies in the real sector, cities, departments and national development banks. The identification of green portfolios carried out in the Evaluation of the Potential of a Successful Bond Market in Colombia gave encouraging results regarding the potential that there may be in Colombia in the cities and departments analyzed ¹². The analysis on four main cities of Colombia (Bogotá DC, Medellín, Barranquilla and Bucaramanga) and four departments (Cundinamarca, Antioquia, Atlántico

¹² Superfinancial

¹³ Identification of the potential of portfolios carried out by E3 Asesorias.

and Santander), indicated that important green assets have been installed and that there are plans to install green in the following years, by the adoption of sustainable urban development policies, which adopt the environment and climate change as one of its axes of intervention. The above does not mean that there is no potential in other cities in Colombia, but rather that this group of territorial entities can individually due to the quality of its portfolio and size, and the good state of its finances, make issuance green bond issues individually. Even some cities and departments of the analyzed group carry out or have carried out green bond issues.

In the 14 cities and selected departments, a total of 91 projects were reviewed, of which 60 correspond to green assets, 19 green projects that are developed in stages and / or are under construction and they already operate partially, therefore, they have a part that corresponds to a green project and another to active green, and finally 12 green projects, which are in the development plans of cities and departments. The total value of this entire portfolio is \$ 24,716 million dollars, of which the Green assets mean \$ 12,602 million, green projects that already have an active part green \$ 1,717 million and \$ 10,397 million in green projects.

On the other hand, companies in the real sector that generate energy and produce ethanol and bio-diesel sustain the largest investments of this possible group of issuers. Hydropower dominates portfolio and it remains to be resolved with the standards that apply to green bond issues, if possible label in this category large hydro energy projects (greater than 20 MW of power installed). Biomass generation from the agro-industrial sector is already enough to sustain emissions in some companies and the expectation is that Law 1715 of 2014 is improving the possibilities of self-generation and energy efficiency, which is why there is more energy generation in the project portfolio with biomass, solar generation and some geothermal and wind generation prospects. The companies of the food, cement, and sustainable infrastructure development sector reviewed, have operational investments and in project, which reach feasible amounts for a green issue. The total value of all this revised portfolio for 31 companies and 107 projects is \$ 19,080 million, green assets mean \$ 8,946 million dollars, green projects that already have a part in operation \$ 50 million dollars and \$ 10,084 million dollars in green projects. Some of the companies sampled, appear among those that issue current bonds.

In the group of national development banks, FINDETER was reviewed, for having the most visible profile in terms of sustainable development of cities and territories, a portfolio and investment projections that can be identify and is publicly presented on the website. It should be noted that there are other portfolios of National Development Banks such as Bancoldex, Financiera del Desarrollo Nacional and FINAGRO, of the which information was not accessed. The result is encouraging and indicates that the National Government can rapidly boost a green emission, but it will be necessary to build capacity for monitoring and monitoring of these investments, in order to adequately report to investors the use of resources and the impact that is being achieved. The same identification exercise can be carried out in the future with the others national development banks.

One quality that this development bank has is its great capacity to bring together the investments of many municipalities and departments that would not autonomously have the possibility of conducting commercial emissions of capital, due to its small project size, for a bond issue.

The total value of the portfolio reviewed for FINDETER is \$ 1,399 million, the green assets they mean \$ 138 million dollars and \$ 1,259 million dollars in green projects. A sample was made

14 Utilities that belong to the cities were included.

of 83 projects, 16 are green assets and 67 are green projects. The largest investments are in: 1) transportation, which includes not only mass transportation, but integration strategies, infrastructure of dedicated canals, urban river and maritime transport, non-motorized transport, platforms for logistics for loading; 2) urban wastewater treatment and waste disposal, including recycling and composting; 3) flood defense; 4) urban reforestation, including infrastructure green structure of a city and protection of supporting ecosystems and 5) efficient lighting, including

alternative energy sources.

Although it is true that the pre-identification exercise of project portfolios for green emissions reflected good potential, there is a need to further refine the assets and projects that could support the green bond issues and build capacity in companies and state entities that have never issued bonds. It is important to note that, in this initial review of the potential of assets and projects, it was not possible to check if they have an appropriate follow-up that manages to monitor and certify green emissions.

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BARRIERS AND CHALLENGES TO CREATION AND EXPANSION FROM THE MARKET

In the evolution of the potential for Colombia, challenges were encountered that must be faced and barriers that they must be overcome, which are related to the structure of the ordinary bond market in the country, the needs of a green bond market, ignorance and lack of capacities on the subject, the management and monitoring of green investments and the need for a body that promotes and manages the market (See first column of the table in Annex 1). This section presents these challenges and barriers.

4.1 Barriers and challenges related to development of the green bond market

The green bond market is new in Colombia and the characteristics and operation of the instrument they are just beginning to know each other. Due to the above, the barriers and challenges encountered for the development of this market, mostly have to do with the need to acquire knowledge of the green bonds and make basic definitions for Colombia in terms of green investments that are to give within the green growth policy, compatible with the climate. Now they present these findings.

There is a lack of knowledge about the green bond market among market players and it is required to develop capacities in different instances and entities. As a result of the application of an electronic survey and personalized interviews, it was found ¹⁵ that financial actors know what

15 In the diagnostic phase, an electronic survey was carried out, with six types of forms designed according to the function of each one of the target groups: promoters of the securities market, risk rating investors, departments and cities, potential issuers from the financial sector and potential issuers from the real sector.

which are the green bonds, although they do not know the details of their application and how the case of Bancolombia. 100% of financial issuers know about green bonds, but not the details of their operations. In addition, and this basic level of knowledge was acquired through their participation in the Green Protocol of Colombia ¹⁶. It stands out in this group that more than 60% of the entities investigated stated that they had the ability to identify green investments, due to the fact that they are developing responsibility schemes social and environmental and an environmental risk control system. The promoters of the stock market have a low knowledge about green bonds and 50% of the investors surveyed know about green bonds, but, although they believe that an issue of this nature would be successful, they would not prioritize it as an ordinary issue, since they must meet profitability goals and risk profile.

The possible issuers of the real sector that were interviewed are companies that already place issues in the ordinary bond market, know about the existence of this mechanism and do not know the details of the operation of the same. 50% of the cities and departments interviewed know about the bonds green and they know that they are a real financing alternative, but they do not know about their operation. The territorial companies are aware of green investment and have assets and projects for the future in the area of climate change. Risk rating agencies and firms based in the country that could do third-party reviews for certification or differentiation schemes of green bonds, do not know about the subject, but are interested in developing this capacity when the market requires it. In general, it is necessary to disseminate knowledge, train and develop capacities in all the market players interviewed, so that the market can develop quickly. Without an exception was interest in the mechanism and the willingness to learn to undertake the development of the green bond market.

It was found that the lack of defining what a green investment is and reviewing whether the categories and subcategories of the sectorial sectors are aligned with those that exist internationally under green bond standards.

There is no guide on how to define a green investment for Colombia, at the sectoral and sub-sectoral level, that includes both investments in climate change, as well as the rest of the green investment spectrum. The availability of this definition should be made between the public and private sectors, to ensure that it contemplates both perspectives. In turn, as far as possible it should be aligned with international definitions,

such as the Climate Bond Standard (CBS), to facilitate the entry of foreign investors, who understand the country's green investment and alignment towards the objectives they seek to support would result more quickly.

The question that must be evaluated by the government of Colombia and by other key players in the market of green bonds is the extent to which these standards serve to achieve the environmental objectives of the country, such as the NDCs, the green growth objectives and the environmental policy in Colombia.

Country-specific guides can help to connect international principles and standards

with local regulations and can help guide funding for priority areas. In this matter already

There are examples of guides made in some countries, some of which have been developed by

Government initiative and others by initiative of the private sector. For example, the Brazil guide was developed by the Federation of Brazilian Banks, while the one developed by the Chinese government is government initiative.

It remains to identify and form green portfolios on a permanent basis, as a portfolio flow is required.

mess that attracts investors. The search for robust portfolios that are aligned to

the requirements of national and international investors, it should not be intermittent work and requires of tools, as well as capacities to analyze them and monitor their impacts on the environment

¹⁶ Initiative of banks and the government that seeks to join forces to promote the sustainable development of the country, and work for the environmental preservation and the sustainable use of natural resources.

The availability of quality green investments and projects is an essential requirement to attract to international and national investors. For this, it is necessary to permanently identify this type of investment and tools to quickly achieve analysis and additions to a portfolio.

On the other hand, the country has yet to generate a clear categorization of what is understood by green investment with international investment categories accepted with standards for green bonds. It is important emphasize that there is already a first effort in defining the investment of the expense or investment in exchange climate by the national government.

The ability to analyze this type of investment, the definition of indicators and a monitoring system of the environmental impacts of investments are part of the reports required by investors.

You are willing to invest in green portfolios. For this, it will be necessary to promote a generation system and knowledge transfer both in public entities and in the private sector.

It was found that it was necessary to disclose the existing incentives and in some cases regulations to be able to apply them widely. In the diagnostic phase, the incentives contemplated in the legislation were analyzed

recently developed ones for unconventional renewable energy / energy efficiency

and existing incentives for foreign investment. In Colombia a good base of

incentives for environmental investment, but most stakeholders request a review of the procedures

entrances for your access. In addition, to promote green development in Colombia that is compatible with the climate, the categories of technologies that drive tax exemptions should be broader

than those currently regulated. Law 1775 of 2014 that encourages the use of renewable energies does not

conventional and energy efficiency, requires that the regulation be completed and that the procedures

access to incentives provided by law are clear and simplified ¹⁷. The existing incentives for

foreign investment is sufficient, but little disclosed.

The disclosure of the package of environmental and tax incentives is necessary among developers and foreign green investors to boost investment and external capital flows.

For the foundations of the green bond market to be implemented and its growth to be boosted, it is necessary to

Involve market players in the governance mechanism. It is necessary to include the participation

participation of investors, issuers in the real sector, rating agencies and the Superintendency

Financial Currently the banks participate, which play the role of issuers, but it is necessary to seat the

Main market parties in the Sub Committee that is suggested to drive the market.

It is important to note that the priority of the Green Bonds Finance Subcommittee will be the promotion of this roadmap for market creation. However, as can be seen later in the document,

Green bonds are used more for the refinancing of projects and assets than for a first financing.

ting of investments. This means that there must be complementarity between the mechanism of

green bonds and other financing instruments and policies for successful market growth.

It is then suggested that the Green Bonds Subcommittee work not only with the vision of establishing the market

do, but to achieve the necessary complementarity between growth financing instruments

green. This includes the development of policies, incentives, green definitions and guidelines that can support the

green bond market and other mechanisms.

There is no knowledge among potential local verifier firms about green bonds and standards to label them. Verification firms that are present in Colombia have good experience in applying standards of an environmental nature, but with the exception of Deloitte, which supported

17 <http://www.elspectador.com/economia/el-pais-despierta-las-energias-renovables-articulo-693194>

the issuance of Bancolombia under the "Green Bonds Principles", do not know about the application of the green bond standards. Although the international teams of these firms work on the issue, it is necessary for them to transfer the knowledge to the offices in Colombia, to facilitate the verifications used providing country-based staff and reducing the costs of providing this service throughout the cycle of a broadcast (pre-broadcast, broadcast, post-broadcast). Climate Bond Initiative-CBI, can support the transfer knowledge of the CBS standard, so that local verifiers can apply it in Colombia. exist other firms The use of standardization reduces transaction costs, including the fees charged by firms that provide the verification service.

There is a lack of standardized follow-up and monitoring mechanisms for green investments, and reporting to versionists. The follow-up and monitoring of green investments is a requirement that demands all the green finance and climate finance in particular, as investors need reports based on indicators to establish the impact that is achieved, the levels of progress in the goals of each project and the complete portfolio. Each type of project that is developed in the green categories and subcategories, it should have a standard form of tracking. Although efforts have been made in Colombia since the public investment to have monitoring systems, what is required by international investors, under The green bond labeling standards have particularities, to verify that the investments comply with meet the requirements sought and that later in the implementation and operation phase, the desired impact. The private sector must also have standardization in monitoring and tracking investments.

Many transaction costs are saved for issuers and investors if there is a standard scheme for follow-up and monitoring, supported by an implementation guide, following the requirements of green bonding and verification signatures. This instrument makes it easy for the market to compare different emissions, saves time for issuers, verifiers and investors and as mentioned, there are savings in costs for all actors. In Colombia, it would be necessary to standardize and develop a guide to monitor the green investments and reports to verifiers and investors.

Small projects and portfolios are not viable for a green bond issue, for the costs they must carry and the little interest they arouse from investors. In the cities and departments analyzed, it was possible to find portfolio sizes greater than US \$ 150 million that they would make possible a national and international broadcast. For other cities and departments with less capacity In the financial situation, the portfolio sizes would make a local or international issuance impossible. In sizes small projects and perhaps credit ratings that do not reach AA + rating, it would be necessary resort to entities that add investments and that have the credit rating demanded in the market fallen. The costs of issuing a bond in Colombia, the additional costs incurred by the certificates Credit claims and own to mark and recognize green issues by verifiers and certification, would make it unfeasible to promote emissions due to the limited size of their portfolios.

Development and commercial banks are much better able to handle the required sizes and ratings. necessary credit purposes. For companies, individual emissions would only be feasible for companies Large size.

From the construction of the market foundations, rules are required for the management of capital resources. ted by green bonds, which make their application transparent in green investment and facilitate reporting to investors. A vital principle contemplated in the rules of handling of the funds raised in a green bond issue, it is possible to monitor the way more transparent to resources. To do this from the beginning of the establishment of the market foundations, It is recommended to establish investment rules for resources in green projects and monitor the management of the resources collected from the investment in a transparent way.

In the best of cases, the temporary investments of resources would be in companies that have emissions ordinary bond holdings and that have green projects not yet recognized by international standards. for this market. Typically, a green bond issue is mostly backed by green assets already in operation that are subject to refinancing, so temporary investments would apply to the resources that are expected to be invested in the future in green projects. This should be a practice that should be adopted by public and private entities, to ensure that the use of resources is applied in the green investment categories recognized under standards. Methodologies that give account of the follow-up to the management of resources.

It must be ensured that in the long term it is possible to finance the portfolio of green projects. According to experience that has been developed in other markets at an international level, green bonds are an instrument refinancing par excellence, used for green assets that are already part of a portfolio. This capital market tool has the power to channel a high level of resources, but towards projects that already have an excellent green rating level and with issuers that have good ratings credit risk. This indicates that financing for green and climate compatible projects They need a series of financing instruments, which are complementary to each other. In Colombia is making an effort to develop innovative financial products for green investing, but to achieve the pace of investment and involvement of the private sector at least with regard to the NDC of Colombia, a greater dynamism is necessary on the part of the financial sector. A successful market for green bonds, requires complementarity with other financing instruments and the country requires promote much more with its financial sector the development of this complementarity, so that there are financed green portfolios, seeking refinancing via fresh resources from the capital market.

4.2 Barriers and challenges related to the market ordinary bonds

From the point of view of the capital market and the structure and operation in Colombia, the bonds Greens face the same barriers as the ordinary bond market. In the diagnosis these barriers and challenges were identified and presented below.

Prioritize the reduction of the fiscal deficit on the government's agenda, in order to balance the high liquidity dez of the Colombian banking market and generate an environment prone to market development debt in the country. The Colombian financial system has not generated complementarity between banks and the capital market, so these two markets compete in providing financing to companies medium and long term. This is mainly due to the high liquidity of the banking sector which results as consequence of high profitability and little competitiveness within it. It should be noted that this base rra is outside the scope of the SISCLIMA Committee, and therefore, of this roadmap.

Now, an indirect way to attack this barrier is to encourage the economic stability of the country. Is The latter constitutes an environment conducive to the development of the capital market. This, since the intermediate The allocation of resources through the issuance of instruments requires low levels of interest rates and inflation. It is necessary, however, to clarify that the current high interest rates and inflationary uncertainty they generate distrust in the population and therefore destabilization. Economic stability encourages it the national government and, on this depend the plans to achieve it.

For there to be an impulse to the development of the green bond market, it is necessary to have examples of between the different sectors and actors of green investment, since the only examples samples have been developed by Bancolombia and Davivienda. These emissions were developed

for investors of the Second Market, which establishes a simplification of the issuance rules and is aimed at professional investors . The issues were acquired in their entirety by International Finance Corporation (IFC) and guarantees were developed for the issues, also supported by the banking multilateral. To achieve that through more demonstrative examples, other issuers and investors are encouraged

Zionists to participate, it is necessary to prove the placement in the primary investor market, in which not only professional investors participate. In addition, it would be very important to get other issuers of the real sector, development banks, cities and departments, use the tool of green bonds to finance and refinance investments for green growth. This would give the market more liquidity and it would become a virtuous circle by attracting more investors.

The bond market faces high issuance costs and a complex process for the authorization and co-location of emissions. The cost associated with issuing bonds in the capital market, both in the primary as in the second market, it is very high compared to other Latin American economies. This statement was also the conclusion of the study carried out by the "World Economic Forum" (WEF) on the development of the Colombian capital market. In this publication, it was identified that one of the challenges that must be addressed are the reduction of costs that a company must incur to carry out a debt issuance and the simplification of the requirements for the approval of an issuance by part of the Financial Superintendency of Colombia (RNVE registration fees, agency cost rating agency, for the administration and custody before Deceval and DCV, cost of the structuring agent, among others).

Now, it is known that the Second Market offers the possibility of reducing the requirements and relaxing the amounts required to carry out an issue. However, this strategy has not been efficient since this market has not presented results. Finally, it should be noted that adjustments have been made simplification of the process for recurring issuers. Therefore, while liquidity conditions remain in the banking system, it will not be more beneficial to resort to the capital market than to bank credit to obtain long-term financing.

The current bond market in the country has a demand concentrated in high credit ratings and Currency fluctuations can affect returns for foreign investors. One of the limitations In terms of investors, it is the non-existent demand for securities with a credit rating lower than AA+. Wasrrera is a result of the minimum profitability required by regulation for pension and severance funds, who are the main investors of these titles in the country. Failure to relax this condition discourages risk taking by investors and therefore tends to homogenize their portfolios. This then restricts access to financing through the capital market for companies that do not comply with these levels of credit rating, and at the same time, restricts the liquidity of the market, forming a vicious circle that slows the development of the private debt market in the country. The secondary market for emissions of Private debt does not exist, because investors are not interested in reselling their securities.

18 In Colombia, the regulation, according to the participation requirements for investors, is classified in the main market and second market. Resolution 400 of 1995 creates the "Second Market", which aims to facilitate access to the capital market local to a greater number of issuers. The only ones authorized to acquire the issues of the Second Market are investors professionals. The conditions to be categorized as a professional investor are:

- Have assets equal to or greater than 10,000 current legal monthly minimum wages (SMMLV) and at least one of the following these conditions:
- Be the holder of an investment portfolio of securities equal to or greater than 5,000 SMMLV and have directly or indirectly carried out fifteen (15) or more purchase or sale operations, during a period of 60 calendar days, in a time that does not exceed two (2) years prior to the time the classification is to be carried out. The added value of these operations must be equal to or greater than equivalent to 35,000 SMMLV.
- People who have a current certification as a professional in the market as an operator granted by a Self-Regulated body. lador del Mercado de Valores (AMV).
- Foreign and multilateral financial organizations.
- The entities supervised by the Financial Superintendency of Colombia.

19 Accelerating Capital Markets Development in Emerging Economies, World Economic Forum, May 2016

Currency fluctuations can impact the total returns on investment made by investors foreign. Its mitigation mechanism is exchange rate hedging instruments, however, there is no a lot of availability for long-term coverage and they have a high cost.

A strategy has yet to be developed to promote the secondary market for private debt issues. The secondary market for private debt is not very liquid and this is a consequence of other barriers already mentioned, since a high rating is required in the titles that make up the portfolios, there is little incentive to sell the bonds once they are purchased. On the other hand, there are few investors and a volume small emissions. In the end, a vicious circle is generated because the low liquidity generates problems of creation of prices in the securities, and this discourages the interest of investors to carry out operations. purchase and sale purposes, so they remain in the portfolios until maturity. Low liquidity is a risk that discourages foreign investment in the country's private debt market, because it is they generate greater risks in the formation of the price of the securities.

5

ROADMAP ACTIONS FOR ESTABLISHMENT AND GROWTH FROM A GREEN BOND MARKET IN COLOMBIA

The roadmap has two phases: in the first, the market foundations are established and the second details the actions to expand the green bond market on a sustained basis. In this section, the actions that comprise the roadmap. In the Annex you will find the table that summarizes the actions of the roadmap that contributes to overcoming the barriers and challenges encountered in Colombia for the creation and ex-sustained expansion of a green bond market, a timeline related to its development and possible actors or those responsible for carrying out the action.

5.1 PHASE I: ESTABLISH THE MARKET FOUNDATIONS OF GREEN BONDS

5.2.1 First Objective: Improve the knowledge of the different actors of the market

To develop a new market, it is essential that its knowledge is disseminated in detail, so that potential beneficiaries are clear about the advantages of using this instrument. The Training needs to be carried out specifically to each group of market players. Additionally, information and knowledge exchange platforms help in the dissemination necessary to increase the capacity of those involved in the green bond market. Two sub-objectives are proposed specific, to develop this first main objective:

Basic training for different actors in the green bond market to gain ownership and knowledge of the subject. The first group ²⁰ are possible issuers of green bonds from the real sector, financy, municipalities and departments that can autonomously make issues in the market for

²⁰ As a working definition for this roadmap, issuers that can autonomously develop green bonds have a good size of the green investment portfolio, approximately greater than US \$ 50 million, and a minimum credit rating with investment grade, BBB-.

2.3

capitals. The dissemination of this training would be done through appropriate unions and associations to every audience. The emphasis of the training for this group is on identifying which investments rank as green and what requirements are required by the green bond labeling standards. Of course there is a general basic knowledge of the step by step in the issuance of a green bond that must be transmitted, in order to that there is the appropriation of how a complete cycle of emission is managed. Example of associations that can disseminate this training with the support of external experts are: Colombia Business Council for Development (CECODES), National Association of Industrialists (ANDI), Agroindustrial Sugarcane Sector (ASOCAÑA), National Federation of Oil Palm Growers (FEDEPALMA), Colombian Association of Genera-Electric Power Companies (ACOLGEN), Association of Banking Entities (ASOBANCARIA).

It is also necessary to train and sensitize national investors, emphasizing the advantages of green issues for their portfolios, but also showing them the step-by-step of an issue green. The Colombian Stock Exchange (BVC) may in the future be an agent that supports the revitalization of this market, as it is a point where issuers and investors converge. Training should be di- rigid to know in detail the operation of a green bond market and promote exchange with other green bond sections hosted on stock exchanges in the world, to create a similar section in the BVC, in the scenario of a dynamic market.

The trainings can be supported by a guide on how to do a green emission for Colombia and di- vulgar it through a platform dedicated to green finance or climate, which can also be promoted by other entities such as BVC, ASOBANCARIA and unions. Examples of guides or "kits" of Green bond issues already exist and can be adapted for the Colombian case ²¹.

Information platforms and forums make it possible to disseminate knowledge and share experiences. companies that improve the process of creating the green bond market in Colombia, which is why should promote the incorporation of an information section and dissemination of knowledge of this instrument on the website of Finanzas del Clima, or on the Colombian Stock Exchange, or some other appropriate information platform, through which there is a dynamic exchange of information from knowledge, documents, memories of forums and workshops, success stories, among others.

Promote an annual forum or meeting for Latin America, in order to disseminate and learn about progress in the subject and exchange experiences with countries in Latin America and other regions of the world, in which different market players attend. A quick proposal for this type of event can be developed in conjunction with organizations promoting climate finance and green bonds globally ²².

It is quite possible that, with the leadership of an organization interested in developing the bond market Greens, or the DNP, get sponsors for this kind of event.

5.2.2 Second Objective: Define green investment in Colombia with its categories and subcategories.

So that the different mechanisms or ways of directing investment flows for green growth and climate change reach the prioritized areas, it is important to make a common definition of what that is a green investment, that gives a clear signal to the public sector and an indicative guide to the private sector. To promote this objective, two sub-objectives are proposed and their respective actions.

21 As an example, the following link can be consulted: http://cebds.org/wp-content/uploads/2016/10/Guia_emissa%CC%83o_t%CC%81tulos_verdes_ING-2.pdf.

22 See Climate Bonds Initiative, Environmental Finance, Emerging Markets.

It is proposed to harmonize the concept of green investment for the country and have as a result a guide document agreed between the public and private sectors. Harmonization is due to carry out taking different concepts that come from green growth policies, NDC, investment- in adaptation to climate change, sustainable urban development, sustainable transport, sustainable rural areas, energy and the priorities of the national productive sector. One benefit of doing so is that builds trust between developers and investors and makes it easier to direct projects towards national priorities. The guide (National Green Investment Guide) can be pushed to the interior of the Sub - Committee on Green Bonds and published on the climate finance platform, in the green bonds.

Make a categorization known by international and national investors that facilitates the understanding of Colombian green portfolios. Once defined what is a green investment appropriate for the country, the task of harmonizing the definitions in the green investment guide, national categories and subcategories, with international definitions by sector and subsector used by investors of green bonds and that are generally established in guides and standards such as Green Bonds, Climate Bonds Standard (CBS) and other forms of cataloging investments for green us accepted by investors. This exercise indicates which categories would be important to propose to develop in international standards as they may be important for Colombia. So preliminary, in the diagnostic phase it was identified that it will be necessary to do so for hydroelectric energy. The international standards administrators such as the CBI would be willing to review the needs individuals from Colombia.

5.2.3 Third Objective: Identify and form green portfolios in a permanent

The offer of green projects and portfolios ensures that there are possibilities to issue green bonds and attracts to international and national investors. To achieve this objective, the following are proposed sub-objectives with their respective actions:

Search within the databases of the expenditure executed in national and territorial public investment, assets that can be carried into green portfolios. National public investments are compiled in SIIF ²³, National System of Royalties and Adaptation Fund. Investments of a regional nature are collected in the FUT ²⁴ database. Currently, the DNP is developing a methodology for classifying sification of investment spending on climate change for investments recorded in these databases data. The classification of annual investment spending on climate change can support the identification of projects that meet the characteristics for green bonds. For example, a transportation project urban mass will be reflected in several years of investment, or an urban waste management project, it can encompass various activities and assets, which can be included in a green portfolio. Of other On the other hand, not the entire spectrum of green investment is contemplated in climate change, which is why it is that once the green growth policy is finalized, the spending classification is extended to the entire spectrum of environment and green growth, which is hosted transversally in all the sectors and territorial entities.

23 SIIF - Integrated Financial Information System, Ministries and Public Credit.

24 FUT - Unique territorial form, hosted in the National Planning Department

For future investments of the national and territorial government, as part of the development of a bank of projects or investment plans of public policies, it is necessary from the beginning to identify which investments would be classified as green, in such a way that this information feeds the search for green bond portfolios.

Have tools and permanent support available for the identification, formulation and follow-up investment and green portfolios. The use of standard tools and designs of project types, that facilitate the analysis, design, monitoring and follow-up of green investments that make up portfolios, it can speed up their formation. It is proposed to create standard designs of the most green projects frequent in the public sector, which contemplate from the beginning the use of appropriate indicators that measure its impact on the environment. This initiative can also be extended to the type of investment more frequent in productive sectors in which private investment participates.

Additionally, you can count on permanent support for the identification of green investments, design, follow-up and monitoring, at least while the market takes a constant dynamics of growth within a public or private entity that has the capacity and interest to carry out this work.

5.2.4 Fourth objective: Encourage greater use of existing incentives

Environmental regulation has broad and sufficient incentives, but many of them were not regulated still and can incentivize green investment. Tax exemptions for clean production are regulated but users indicate that it is a long and costly process and that it only contemplates a limited investment spectrum. Incentives for foreign investment that can apply to investors of international green bonds have been very little disclosed. Before the tax reform, withholding tax the source for foreign investment in debt with a term of more than one year was 33%, and with the reform it was reduced to 15%. This significant reduction must be communicated to foreign funds, who can broaden the investor base for the bond market.

However, this reform did not modify the double taxation barrier for some countries, with the exception of Italy, Germany, Chile, Spain, Switzerland, Mexico among others. This limitation could be modified by the government to promote investments from countries like the United States.

The following sub-objectives and their respective activities are proposed:

Widely disseminate the existence of tax incentives for environmental investment and the foreign investment. The disclosure should be made in different publications for investors of green bonds and foreign investment, in a joint effort between government authorities and should be available on the Climate Finance website.

Have incentives aligned to the objectives sought and simplify access to them. Rule- The introduction of VAT and income tax exemptions for investment in the environment has limited the spectrum of application of the same to a type of investment that can be expanded. This does not require modification of the tax law, but through decrees and resolutions other types of investment. Not all green investment categories are expected to be covered by the exemptions, but the ones that are most important for Colombia.

On the other hand, an action is proposed aimed at reviewing the procedures for accessing the incentives taxes for the environment and renewable energies, to simplify them and make their access more efficient. With this, favorable conditions are created for the development of green investment, a necessary condition so that different financing instruments are developed.

Environmental regulation contemplates economic instruments that induce environmental investments. His regulation is part of a set of environmental policy and therefore the action consists of reviewing the existing possibilities to prioritize its regulation, according to the objectives in terms of green growth.

5.2.5 Fifth Objective: Consolidate the Governance mechanism

To promote the development of the market, a body is required to lead and coordinate actions with the participation of key actors, who can arrange and carry them out. Brazil and Mexico established a governance mechanism that drives the actions of the proposed roadmap in each country.

To achieve this, the first proposed step is to formally form the Green Bonds Subcommittee of the SISCLIMA Financial Management Committee, linking the following members: a representative of institutional investors (ASOFONDOS) Colombian Association of Fund Administrators Pensions and Unemployment, a representative of the Ministry of Finance and Public Credit (MHCP), a representative representative of the Ministry of Environment and Sustainable Development (MADS), a representative of Bancolombia, a representative of Findeter, a representative of the Green Protocol, a representative of (FINAGRO) Fund for the Financing of the Agricultural Sector, a representative of the issuers of the real sector, a representative representative of the Financial Superintendency and a representative of the Colombian Stock Exchange.

The Green Bonds Subcommittee should set an agenda to advance the proposed roadmap and monitor it periodically, once its formation is formalized. Finally establish a Technical Secretariat and a framework regulation to operate.

5.2.6 Sixth Objective: Have bond standards verification signatures greens in the country

To create confidence among investors about the portfolios that support green issues, they apply recognized standards to mark green bond issues. Verification of the standard is it occurs throughout the bond cycle, that is, pre - issuance, issuance and post - issuance. Have this ability in the local teams of the firms that provide verification services, it helps to streamline the procedures less costly for issuers. So a single sub-objective is recommended with its respective actions.

Engage verification firms with their local teams. For this, it is recommended to hold events outreach among firms of international origin that have representations in Colombia, but that they have international teams in their offices outside the country that can transfer the experience of verify under green bond standards and facilitate meetings between verifiers and the Bond Subcommittee green, to achieve an understanding of the actions necessary to drive the market. It would be expected that firms take action to train local teams to provide the service, but if necessary, the Subcommittee on Green Bonds, can promote an activity to support the training of verifiers.

5.2.7 Seventh Objective: Standardize the follow-up and monitoring of the impact of investments for verifiers and investors

Issuers and managers of the green portfolio that back green bonds must report both to verification firms as well as investors. The report has several purposes: to verify the progress of the

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projects in the goals they must achieve, monitor the impact on the environment and report the application of resources.

Having standardized indicators by project typology and a guide on how it is reported, facilitates the monitoring and follow-up task for those responsible for managing the green portfolio and issuers.

All this translates into a decrease in transaction costs of monitoring, follow-up and report. For this, two activities are proposed: i) define the type of monitoring and impact indicators appropriate to the type of project that is housed in each category and subcategory of the Investment Guide Greens of the country and ii) design or adapt a standard follow-up and monitoring report, which facilitates issuers and project developers in Colombia the task of informing investors and facilitating Verifying firms reviews. All this under international standards already used and with the support of the administrators of the green bond standards.

5.2.8 Eighth Objective: Establish resource management mechanisms

captured in green bond issues

The principles that apply to green bonds and investors seek that the resources raised are applied in green investments and transparent management of resources. The objective is to create confidence in the management of resources towards green investments, especially those made by the sector public. For this single sub-objective, the following activities are proposed:

Establish or adapt from other examples, a guide for managing the resources of bond issues green, in which investment rules are specified for those resources aimed at refinancing and new projects. This guide should contemplate rules for the management of resources already placed and those pending to direct towards green investments.

In a complementary way, to establish traceability in the movements of the resources captured for green bonds, it is proposed to suggest in the guide the creation of separate accounts, in which it is possible to make a detailed follow-up of movements and use of resources. This is especially important for public entities, which in addition to reporting for green bonds, must report to control bodies of public management. As part of creating separate accounts you will require instructions to de-project developers and issuers on the different systems to keep the management record of the resources and how to report these movements to investors.

5.2.9 Objective Ninth: Ensure that in the long term it is possible to finance the portfolio of green projects

In the long term, green financing must be supported by different debt instruments and equity investment. Green bonds are used more to refinance operations, than to finance new projects. In practice, the portfolios supporting green bond issues are a mixed bag between assets and future projects. A sub-objective with different activities is proposed.

Structure different mechanisms and financial products to mobilize green financing. The activity consists of working with local commercial and development banks to expand product design, innovators for green financing, according to the typology of projects prioritized in the Guide of Green Investment, in aspects such as the availability of long-term products and forms of aggregation of small project sizes.

Additionally, in conjunction with national and international development banks, structure guarantees that allow the mobilization of resource flows towards green investment.

5.2 PHASE II: SUSTAINED AND SUCCESSFUL EXPANSION FROM THE MARKET

5.2.1 First Objective: Develop more demonstration cases with different types of issuers and investors

An effective way to encourage market expansion is to test green bonds with different types of issuers and investors. In particular, the two cases that have been developed in the country with Bancolombia and Davivienda, belong to commercial banks and the investor was IFC, with simplified rules of the Second Market. It remains to test emissions with the local development bank, the real sector, the cities and departments. From the investors' point of view, the primary market has not been tested, such as nor to international investors other than IFC. The following sub-objective is sought, with its respective activities:

Create confidence in the market for both issuers and investors, educate them regarding the type of green investments that can be linked, tested standards and rules. It is proposed to do at least two or three green bond issues in the first year with the national development bank: FINDETER, Bancoldex, FDN and FINAGRO / Banco Agrario, aimed at the sectors they serve, as each bank has specialized in managing the risk of investments in the sector for which they were created.

At the same time, green emissions can be boosted among large companies that are compliant.

four conditions: a) they have current issues of current bonds; b) have experience in the market and credit ratings equal to or greater than AA +; c) it was possible to identify green assets and projects; d) They have adopted sustainability policies that give investors confidence.

It is also possible to issue green bonds with cities and departments that in a way autonomous communities have the conditions to do so, within the framework of their sustainable urban development policies and that have green assets and projects in sustainable urban transport, urban waste management, efficient energy management, buildings under eco-efficiency standards, management of eco-infrastructure basic logic of the city, water management, and adaptation to climate change. In the category of issuers public services, you can support other state service entities, which operate within the municipalities, but with independent assets and management. These service companies generally do management of aqueducts, sewers and some carry out power generation and transmission. They should choose those that have already made or made current bond issues and can support a portfolio of green projects and assets.

Finally, within the aforementioned issuers, it is possible to review the possibility that they issue already realized ordinary bonds of large companies, municipalities and departments, and even banks cos, but at the same time have unlabeled green portfolios, they can do the process of application of a green bond standard.

²⁵ Consult the diagnostic document of the Second Market and its simplified rules.

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5.2.2 Second Objective: Reduce emission costs and simplify the process for the authorization and placement of issues

To achieve this objective, two actions are proposed:

Reduce the costs associated with an issuance by private market agents, in line with the diagnosis of the WEF, so that more issuers are encouraged to place bonds and that in the end there is a positive situation for all. On the one hand, the private agents involved (risk rating agency, for the administration and custody before Deceval, structuring agent of the issue, among others), they win with higher placement volumes and issuers see a less expensive mechanism they can use as a financing alternative. It should be noted that most of the costs associated with an issuance They are at the head of the private agents.

Disseminate the efforts to reduce costs and processes carried out by the government, since, although that simplifications have been made in the requirements and the amounts required to carry out emissions, especially for recurring issuers, the measure has not given the expected result, in part due to the lack of an effective communication strategy to the entrepreneurs of the real sector, so that they contemplate use the bond market much more as a financing mechanism.

Information on progress in reducing costs and processes must be available in the different guides proposed in this roadmap to boost the green bond market and on different platforms of information, such as Climate Finance, Superfinancial, BVC, ASOFONDOS, among others.

5.2.3 Third Objective: Diversify Demand with Qualified Securities credit rating less than AA +.

In 2016, Decree Number 765 of May 6, 2016 was issued that allows funds to pensions to unify the limit applicable to investment in local and foreign private equity funds at a level 10% added for the moderate fund, allowing a more flexible management of these assets. A new investment category of "restricted assets" was also created that provide greater flexibility in investment. Finally, the government approved in this same year, an asset investment vehicle alternatives for pension funds up to USD 10 billion. These measurements demonstrate a clear intention of the government to encourage the development of the capital market, by diversification of demand with qualifications rated below AA +. The following sub-objectives are proposed and its actions:

Encourage issues below AA + given that there is currently no demand for securities with a lower rating and encourage smaller size issues. Based on the developments

set out in the previous paragraph, one of the alternatives for the development of the green bond market, would be the creation of alternative capital funds that can open a channel specialized in green bonds.

Incentivize institutional investors in investments below AA +. Now there is an alternative to boost investment by pension funds in private debt securities with Ratings lower than AA +, however, this would require modifying the existing regulation. The stable-foundation of a band to determine the minimum return could stimulate investment in securities with higher risk; so that the current floor would be modified by a floor and a ceiling within which it can fluctuate the required profitability. In this way, any excess above the ceiling would serve as a source. In case the profitability was lower than the floor. Companies with lower ratings would be more incentivized to issue bonds in general, and a part of these could be green bonds.

5.2.4 Fourth Objective: Mitigate the impact of exchange rate risk for Foreign investors.

Finally, taking into account the significant devaluation of the Colombian peso in recent years, it is important to create an environment conducive to foreign investors to mitigate the impact of the exchange rate risk through the long-term currency hedging market. It is recommended that Colombian financial entities create spaces for the development of this market.

5.2.5 Fifth Objective: Promote the secondary market for the emissions of private debt

The secondary market in Colombia has low liquidity and is therefore unattractive for investors. To encourage investor participation in this market, it is necessary to develop a strategy in which an adequate environment is created for the participation of new issuers and the deepening of participation by investors. For this, the following sub-objectives and activities are suggested:

First, eliminate the negative regulatory bias in the ownership of private debt securities in the portfolios of financial intermediaries. A way to encourage the banking sector to participate in the buying and selling of bonds can be the reduction of the weighting of these securities in the calculation formula of the technical patrimony of the entity.

Second, reduce the restriction on the entry of commission agents to the market. This action consists of allowing that funding operations on private debt that have guarantees are not included in the limits of leverage of stock brokers. This would make it possible to reduce the entry restriction of commission agents to the market currently limited by the technical assets of the intermediary with which it operates.

Third, modify the remuneration schemes for the management of pension portfolios, incorporating the management of additional return and efficiency in management, since currently, only the minimum return is taken into account.

Fourth, increase market monitoring. To do this, it is proposed to generate benchmark indices for the market private debt, which can serve as a starting point for portfolio managers' evaluation. Additionally, it would give investors the ability to monitor this segment of the market.

All these are strategies that would allow the development of the ecosystem necessary to create the market for risk and generate the conditions of liquidity and plurality of demand, in order that issuers with qualifications below AA + have real and efficient access to capital market resources.

6

CONCLUSIONS AND RECOMMENDATIONS

Colombia has great potential to direct green growth and manage to structure programs and projects that generate authentic competitiveness for the country based on its enormous natural potentials, them and humans. To achieve this path, it is necessary to generate an attractive portfolio of programs and projects, who at the same time use new financial instruments such as green bonds for their financing. On this sense, the roadmap has set out the steps necessary for the country to promote green bonds from proactively analyzing the different elements of understanding of what is understood by projects at the same time green bonds, training, generation of project portfolio and solutions to challenges structural financial instruments for the issuance of bonds.

The type of actions that are required begin by creating capacities and appropriation of the instrument of green bonds between different market players. There is a group of actions in the roadmap that is can develop in an accelerated way and they can quickly boost the development of it. These Actions begin by establishing the Governance mechanism with the participation of market players that are not currently part of the Green Bond Subcommittee. Additionally, the demonstration cases With different issuers and investors, they help increase awareness and ownership of the subject. Yes This activity is accompanied by the definition of different guides and green investment methodologies, report and monitoring and alignment with international standards, there will be a basis to quickly support possible issuers.

At the same time, the country is behind in making public and private green investments visible, in order to understand its potential in the economic development of the sectors and in each city and territory. Classify the green investments in national accounts and generating a portfolio of green opportunities will accelerate investment opportunities with both internal and external resources, and facilitate the development of instrumental financial instruments such as green bonds.

Outreach campaigns and the information platform can begin to be implemented in the medium term, after implementing the actions described in terms of capacities and appropriation. For Finally, as is known, the same barriers that exist in the ordinary bond market, there are for the green bond market segment. A proposal to the financial authorities to continue esti-

reducing costs and processes for issuers, as well as regulations that make more flexible the credit risk and profitability requirements that investors must meet, has benefits for

the entire capital market and will provide a better growth scenario for green bonds. These
Proposals can also be accompanied by stimuli to the secondary market for securities and a regulation
tation more in line with the type of investments that applies to tax incentives.

The package of measures that can be promoted can be developed in the short term, with an agenda of
work promoted by the Green Bonds Subcommittee, including the participation of new actors such as
pension funds and with the participation of possible private sector issuers. Synergies between
the functions of the state to generate the enabling conditions for the issuance of bonds and opportunities
emission units that are beginning to be seen from the private sector, will be fundamental to generate the
confidence needed to stimulate green bonds as a viable instrument for green growth
from Colombia.

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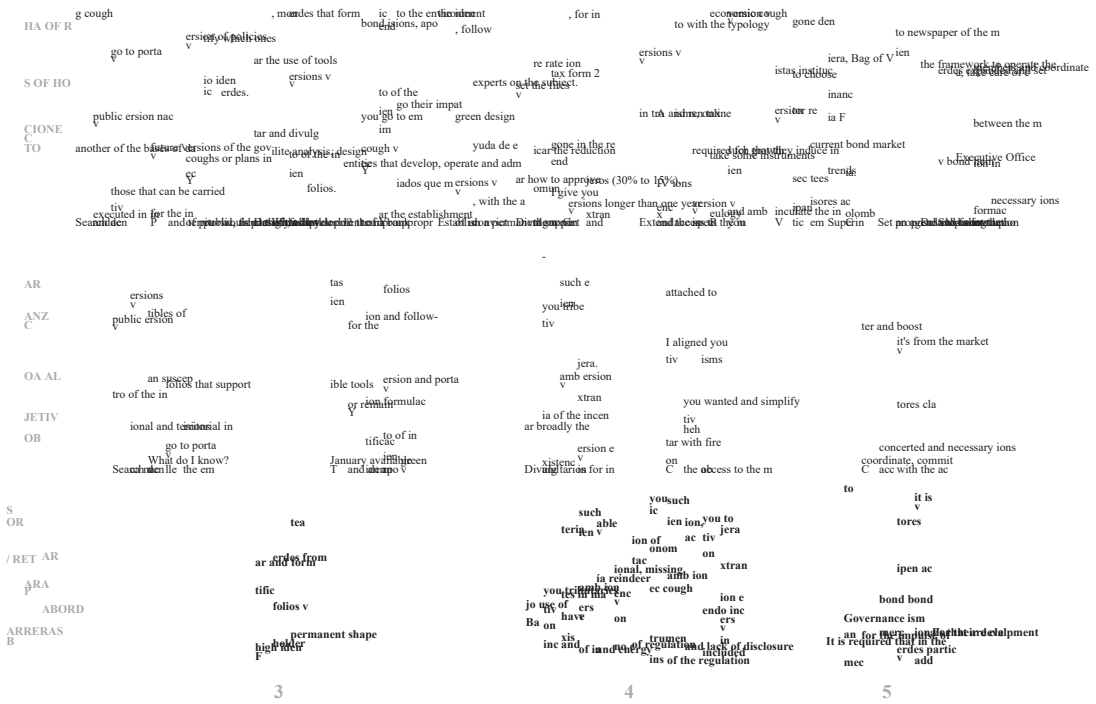
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7. ANNEX 1: SUMMARY OF ROADMAP ACTIONS

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This document is the result of a project commissioned through the Alianza Clima y Development (CDKN). CDKN is a program funded by the Department for Development UK International (DFID) and Directorate General for International Cooperation (DGIS) of the Netherlands for the benefit of developing countries. The opinions expressed and the information included therein does not necessarily reflect the views or are not the approved by DFID, DGIS or the entities in charge of managing the Alianza Clima y Development, who cannot be held responsible for said opinions or information or for the trust placed in them.

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