Financial Strategy of Georgia for LT-LEDS
(Analytical Paper)
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Introduction

This document describes financial aspects of the strategic (basically long-term) directions of Georgia’s long-term low emission development. The climate financial /finance strategy considers critical success-factors needed for raising public, private and international funds for implementation of the LT LEDS.

Georgia’s Climate Financial Strategy is a framework aiming to integrate all climate-relevant sectors, such as energy, industry, agriculture, waste and forestry and formulate a common approach for them in terms of financial policy for the LT LEDs. Thus, the Climate Financial Strategy represents a strategic vision for all climate-related sectors which also includes the investment needed for the implementation of LT-LEDS.

At the same time, Georgia’s Climate Financial Strategy also promotes GHG reductions, enhances environmental dimension, sustainable development, sustainable economy and green growth by directing financial resources into the climate-friendly activities in all CC-relevant sectors. The strategy also promotes the development of these sectors in terms of technological, technical and human resources when aiming at meeting their financial needs, filling gaps and overcome barriers.

Concept of Climate Finance

Climate finance includes local, national and international finances that support climate mitigation, adaptation towards climate change and low carbon development. These finances can be public, private, national, global, or flowing from other sources (blended, philanthropic, etc.). The UNFCCC Cancun Agreement (2010) affirms that “scaled-up, new and additional, predictable and adequate funding shall be provided to developing country Parties. Thus, climate finance offers new and interesting opportunities to countries to boost their sustainable development and economic growth. It also creates new opportunities to attract additional funding from overseas and leverage resources and investments from other sources. In addition, climate finance facilitates the process of integrating climate actions into national development planning and sectoral policies.
So, climate finance covers all activities that can be classified as climate mitigation and/or climate adaptation. Consequently, it supports achieving climate-resilient development and a low-carbon economy.

**The rationale of Climate Change**

The rationale of climate change is based on the fact that climate change intensifies existing risks and will create new ones for the whole society. Climate finance can play a vital role in reducing climate-induced environmental and economic losses. There are three basic reasons why the role of climate finance increases over time. First, due to vulnerability to climate change of natural resources, physical assets and human capital, climate change can cause sizable economic and financial damage in the long run. Second, the awareness of society on climate change crisis has raised significantly and, therefore, there is a high demand from the global society to deal with the climate-induced problems such as environmental destruction, depletion of natural resources, unsustainable use of materials and so on. Third, there is a tendency of companies’ management to run resources sustainably and be socially responsible due to stakeholders’ requests.

**Global Climate Finance**

Global climate finance is a complex and multifaceted system that includes green financial institutions, green financial products and global markets where green financial products are traded. Presently, the scale of financial products is growing. The demand for green products has been significantly increased due to many causes such as raising environmental awareness of the society (customers, firms, governments, investors, etc.) on climate change, international agreements between countries, strengthened environmental regulations, increased access to information due to higher media coverage.

Due to the contemporary tendencies mentioned above, at the global level, the banks have started to offer different types of green products such as green insurance, carbon insurance, green mortgages, green home equity loans, green commercial building loans, green investment funds, green project finance, etc.

It is also reasonable to note that these financial products are relatively new and that is why it is hard to say whether they are successful or not. However, they should be considered as new opportunities (Noh, 2018).
As it was highlighted above, the global climate finance also covers international organizations (such as Green Climate Fund (GCF), Global Environmental Facility (GEF), Special Climate Change Fund (SCCF), Adaptation Fund (AF), Climate Investment Fund), climate programs (for instance, CDM and UN-REDD), national funds (such as UK’s International Climate Fund and Amazon Fund), various international initiatives (such as Germany’s International Climate Initiative, Covenant of Mayors, Global Climate Change Initiative and so forth). Table 1 represents the major global financial institutions in the climate change sphere.

Table 5.1: Major Global Climate Multilateral Funds

<table>
<thead>
<tr>
<th>Name of Institution</th>
<th>Mission/Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Climate Fund (GCF)</td>
<td>The GCF was created from the UNFCCC climate negotiations (2010) as the main financing arm for ambitious and transformative projects for climate change mitigation and adaptation. It has four main investment policy directions: transformational planning and programming, catalyzing climate innovation, de-risking investment to mobilize finance at scale, and mainstreaming climate risks and opportunities into the investment decision.</td>
</tr>
<tr>
<td>Global Environmental Facility (GEF)</td>
<td>Established on the eve of the 1992 Rio Earth Summit, the GEF aims to tackle the most pressing environmental problems. It serves as a financial mechanism to five conventions: the UNFCCC, the Convention on Biological Diversity, the Stockholm Convention on Persistent Organic Pollutants, UN Convention to Combat Desertification, and Minamata Convention on Mercury.</td>
</tr>
<tr>
<td>Adaptation Fund (AF)</td>
<td>The AF Fund was established at COP7 in Marrakesh in 2001 to finance concrete adaptation projects and programs in developing countries that are particularly vulnerable to the adverse effects of climate change. The AF mostly delivers grants that support communities to adapt to climate change. These can be in the form of innovation grants, readiness grants, or enhanced direct access grants.</td>
</tr>
<tr>
<td>Climate Investment Fund (CIF)</td>
<td>The CIF fund was established in 2008 by 14 donor (developed) countries. The goal of the fund is to assist in scaling up mitigation and adaptation actions in developing and middle-income countries. The fund’s resources are held in trust by the World Bank and offer grants, concessional loans and risk mitigation instruments to recipient countries.</td>
</tr>
</tbody>
</table>
Global Energy Efficiency and Renewable Energy Fund (GEEREF)

The GEEREF was initiated by the European Commission in 2006. The fund’s investments aim to provide access to sustainable energy, combat climate change, and deliver financial returns. The GEEREF is an innovative fund that invests in clean energy projects in developing countries and economies in transition.


https://www.adaptation-fund.org; https://www.climateinvestmentfunds.org;

Funding and Investment Mechanisms of Climate Finance

Climate change funding and investment mechanisms are a crucial part of the climate financial policy as without leveraging financial resources it is almost impossible to implement influential and transformative projects. To mobilize financial capital for climate-friendly activities it is recommended to form climate change funding and investment mechanism that should involve local and international organizations. The complexity of this approach is that these institutions have different missions, goals and policies. These organizations are governments, private companies including commercial banks, investors, non-profit organizations, charities, partnerships, cooperatives, international development banks (ADB, WB), etc. During the establishment and execution of funding and investment mechanisms, it is essential to find a common interest of these stakeholders and properly link their objectives for creating bases of future cooperation and funding.

The governments’ role in the formation of funding and investment mechanisms is significant. As public funds are limited, they should encourage private investments, create effective capital market systems and facilitate financial flows among stakeholders that will advance climate finance in the country.

Since climate investments are characterized by high risks and uncertainties, governments should take a leading role and make an initial step towards investment guarantees, green market formation and commercialization to promote climate-friendly activities in the private sector.

Another big issue regarding the funding and investment mechanisms is a public-private partnership. The public-private partnership is a fundamental element of the funding and investment mechanisms. It creates and strengthens trust that is a decisive factor of success. It
is also important to note that there are good examples of the successful implementation of public-private partnerships such as the Fund of Fund (the Republic of Korea) and the Yozma model (Israel).

**Principles, Barriers and Strategic Pillars of Georgia’s Climate Financial Strategy**

The climate financial strategy (CFS) of Georgia is an integral part of the country’s long-term development strategies. The CFS is a key element of it because all policy activities require adequate financial support. Climate financing is a necessary component of any climate policy targeting to address global warming challenges.

The ultimate goal of the CFS of Georgia is to ensure that sufficient climate finance will be accessed, mobilized and scaled-up for the implementation of the LT-LEDS of the country. The CFS focuses on green finances and offers rigorous solutions and robust financing mechanisms to attain the primary aim of the LT-LEDS: reduction of the GHG emissions by developing, transferring and implementing high-tech, modern and resource-saving mitigation technologies.

It is important to formulate the fundamental principles of the CFS of Georgia before discussing them in detail. There are 7 basic principles of the strategy that should be followed by the planners and executives to achieve climate policy aims (see table #2 below).

**Table 5.2: Basic Principles of Climate Finance Strategy**

<table>
<thead>
<tr>
<th>Name of a Principle</th>
<th>Brief Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership</td>
<td>All stakeholders should be involved in determining the ownership of the climate strategy and implementation of mitigation and adaptation initiatives.</td>
</tr>
<tr>
<td>Inclusiveness</td>
<td>Climate mitigation and adaptation initiatives should ensure the inclusiveness of all stakeholders.</td>
</tr>
<tr>
<td>Sustainability and Effectiveness</td>
<td>Climate mitigation and adaptation initiatives should be sustainable and effective.</td>
</tr>
<tr>
<td>Mainstreaming of climate change</td>
<td>Climate change issues should be mainstreamed into national development planning and budgeting.</td>
</tr>
<tr>
<td>Government</td>
<td>The role of the government should be leading in initiating, planning and implementing climate mitigation and adaptation measures.</td>
</tr>
</tbody>
</table>
Barriers to climate financial flows should be analyzed properly and planned how to reduce and/or avoid them.

Market economy principles

All climate mitigation and adaptation measures should be based on market economy principles.

Source: Melanesian Spearhead Group Climate Finance Strategy for 2019-2021

To formulate an adequate strategy, it is crucial to analyze the barriers of accessing, mobilizing and scaling up the financial capital for implementing climate-friendly actions and measures. These barriers hamper the green investment process. While considering these barriers, it is essential to take into account the country’s development level, economic conditions, development level of capital markets and some other national country-specific circumstances. The barriers to mobilizing climate-related financial resources in Georgia are presented in table 3. It is relevant to note that one of main goals of the government should be to identify the barriers, estimate their strengths and effects and take measures against them for their prevention, reduction and/or elimination.

Table 5.3: General Barriers of Access and Mobilization of Climate Finance in Georgia

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Brief Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited resources</td>
<td>Climate-friendly activities require high-risk capital as they are very risky. Early-stage investments (such as venture capital) are vital because they provide the link between the research and development of technologies and scaling up.</td>
</tr>
<tr>
<td>High-perceived risks</td>
<td>Risks that apply to climate-friendly investments are often perceived by investors differently; This fact causes a wide variation in pricing and capital availability.</td>
</tr>
<tr>
<td>Lack of transparent data</td>
<td>A lack of transparent, reliable and available data that report the technical performance, energy production and environmental impacts of climate projects limit the ability of potential investors to assess the past projects which cause the risk premiums to rise.</td>
</tr>
<tr>
<td>Policy uncertainties</td>
<td>The uncertainty in policies around climate change reduces the attractiveness of long-term investments in climate-friendly activities. Sometimes, the government’s unclear commitments to climate policy also hinders to incentivize investors.</td>
</tr>
<tr>
<td>Short-term investors’ horizons</td>
<td>Most investors’ financial decisions are focused on near-term returns and risks.</td>
</tr>
</tbody>
</table>
Deal size preference

Large donor financial institutions usually scale deals on significantly grander-scaled projects and therefore smaller implementing entities have difficulties in attracting financial capital for the climate-friendly projects including solar photovoltaics, electric cars, the efficiency of buildings, energy-saving residential equipment, energy efficiency, etc.

Timing of climate risk impacts

Most financial decision-makers do not view climate change as a significant short-term risk that requires the adjustments of investment and credit considerations.

Lack of climate-friendly investment guidelines

There is no universal definition for climate investments or for climate finance actions that provide direct funding towards reaching climate goals and reducing GHG emissions.

Source: Climate finance strategy 2018-2023, Hewlett Foundation

As it was underlined earlier, climate financial strategy of Georgia is one of the keys and integral parts of the climate policy of the country. The ultimate objective of the FSC is to scale up climate finance for attracting climate-friendly investments and achieving the goals of the LT-LEDS. As a result, it should facilitate the country’s sustainable and climate-resilient development.

Table 5 represents the strategic pillars and corresponding short-term and long-term actions of Georgia’s climate financial strategy. The pillars and actions identify the basic strategic directions that will enable the necessary synergies with other public policies oriented towards the achievement of Georgia’s overall development goals.

The strategic pillar is focused on generation of information and analysis to mobilize financial capital for climate policy measures, coherent with LT-LEDS, NDC, Georgia’s economic development objectives and governmental responsibilities. This pillar is pivotal for the long-term climate financial strategy as every strategy requires relevant and credible data for making correct policy decisions. Therefore, the government of Georgia needs to coordinate its efforts with public and private entities of all economic sectors to generate reliable and plausible information.

Strategic pillar II is focused on enhancing green financial instruments and green markets. In general, financial instruments are fundamental components of any climate strategy. Several funding instruments have recently been developed to identify innovative approaches to devote capital flows to the relatively new sectors of sustainable housing, renewable energy, energy
efficiency and so forth. As these types of investments need a sizable amount of financial assets, it is crucial to leverage green finances through different instruments.

In the case of Georgia, it is important to start a dialogue with financial authorities and financial entities such as banks, insurance companies and pension funds about the introduction of green financial products such as green bonds, green insurance, carbon insurance, green mortgages, green home equity loans, green commercial building loans, green investment funds, green project finance, etc. In this regard, it is decisive to create efficient markets and effective regulations for developing markets of green products.

Table 5.4: Georgia’s Main Strategic Pillars and Actions of FSC

<table>
<thead>
<tr>
<th>Strategic Pillar</th>
<th>Actions</th>
</tr>
</thead>
</table>
| **Pillar I: Data generation, information and Analysis** | - Identify climate goals and financial needs;
- Determine sector priorities;
- Collect data on public expenditure;
- Develop a technically feasible portfolio of projects that contribute to the NDC implementation;
- Promote synergies between economic, financial and environmental information; |
| **Pillar II: Facilitating green financial instruments and markets** | - Strengthen cooperation with financial market participants such as banks, funds and other financial intermediaries;
- Introduce sovereign green bonds;
- Encourage the design and issuance of different types of green financial instruments such as green bonds, risk reduction insurance, and carbon markets;
- Initiate an identification process of the multilateral sources of funding;
- Pool public and private funds;
- Develop government-backed credit guarantees schemes;
- Facilitate finances for project funding. |
| **Pillar III: Identifying priority climate projects** | - Align and integrate climate strategies with industrial, energy, agriculture policies and programs;
- Identify climate risk and investment opportunities;
- Set up the criteria of the economic feasibility and select for funding the most financially attractive projects. |
Pillar IV: Establishment of climate investment cooperation

- Strengthen cooperation between all stakeholders such as the government, financial intermediaries, business associations, and potential investors;
- Collaborate and improve coordination with existing forums;

Pillar V: Promoting capacity building for developing and implementing mitigation and adaptation projects

- Develop mitigation and adaptation project pipelines;
- Utilize GCF funds;
- Raise the capacity of human resources;
- Ensure that climate change is mainstreamed into national development and sectoral plans and budgets.

Pillar VI: Strengthening green finance in the financial markets

- Set up a long-term platform of dialogue among financial sector actors;
- Raise awareness on climate change risks and climate finance opportunities;
- Collaborate with NBG and MoF to facilitate climate risks inclusion in their management frameworks;
- Establish and introduce analytical models on climate finance with financial entities;

Source: Author’s judgment

Strategic pillar III focuses on climate-related project preparation and implementation issues. It is very important for the country to have an appropriate capacity to prepare proposals of economically feasible and bankable projects. Without proof of financial feasibility in the proposals, it is quite complicated to attract financial capital from climate multilateral funds and international donors. Therefore, Georgia should pay particular attention to the sectors where there is a relatively high potential of GHG reduction and there is a clear vision of how to transform the sector. The long-term and medium-term suggested activities are given in table 4.

Strategic pillar IV concentrates on establishment of the climate investment cooperation. This type of collaboration between stakeholders is essential in the climate policy as this is a good approach for exchanging relevant information, raise trust, generate ideas, prepare bankable projects, based on stakeholders’ opinions and implement them properly.

Strategic pillar V is focused on capacity building for developing and implementing mitigation and adaptation projects. In this regard, the most relevant issue is human resource management and development. To raise the capacity at a sufficient level in the country, it is necessary to
assess the existing human resources, evaluate gaps and equip the technical personnel with necessary knowledge and skills. The recommended actions under strategic pillar V are presented in Table 4.

Strategic pillar VI aims to enhance climate finance into the financial sector of the country. Since transition towards a low emission economy requires a large amount of financial capital, the public funds are not sufficient for it. That is why the role of the financial sector is vital in terms of financing and fundraising. Furthermore, it is relevant to note that climate change threatens financial and macroeconomic stability and therefore the financial entities such as the National Bank of Georgia, the Ministry of Finance, commercial banks, insurance companies and pension funds should be aware of this fact. Regarding the awareness of climate change, it is advisable to create a public-private green finance roundtable to respond to the climate change challenges.

Table 5.5: Total Investments Needed by Sectors (2020-2050), million USD

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total Investment Needed (WEM)</th>
<th>Total Investment Needed (WAM)</th>
<th>Potential Source(s) of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>5 980</td>
<td>7 310</td>
<td>The private sector, FDI, international financial institutions (GCF, GEF, EBRD, etc)</td>
</tr>
<tr>
<td>Transport</td>
<td>44 000</td>
<td>70 100</td>
<td>State and municipal budgets, private sector, international donor organizations (GCF, GEF, EBRD)</td>
</tr>
<tr>
<td>Industry</td>
<td>160</td>
<td>200</td>
<td>Enterprise Georgia, Partnership Fund, WB, ADB, GCF, KFW</td>
</tr>
<tr>
<td>Agriculture</td>
<td>33</td>
<td>65</td>
<td>The private sector, state grants and concessional credits, green climate bonds, GCF, GEF, EBRD</td>
</tr>
<tr>
<td>Waste</td>
<td>20</td>
<td>20</td>
<td>The state budget, municipal budgets, international organizations</td>
</tr>
<tr>
<td>LULUCF</td>
<td>307</td>
<td>414</td>
<td>The state budget, Green Climate Fund, Carbon credit market instruments</td>
</tr>
</tbody>
</table>

Source: Sectoral experts’ estimations (optimistic scenario)
From the financial and practical point of view, it is relevant to estimate the investment needs for understanding the scale of financial resources required for implementing the proposed climate strategy; According to the estimations made by LT-LEDS sectoral experts, the total investments needed approximately amount to 50.5 billion USD and 78 billion USD for the WEM and WAM scenarios respectively for the whole Georgian economy/all the sectors in total. The detailed information on these estimations by sectors is presented in Table 5. As seen from Table 5, the largest financial resources are required by the transport measures demonstrating the highest GHG emission reduction potential (see table 6 below).

For Georgia, it is important to analyze the total potential GHG emission reductions by sectors. According to Georgia’s LT-LEDS sectoral experts’ estimations and judgment, it is possible to decrease the country’s total GHG emissions by 40,334 Gg CO\textsubscript{2} eq. through the optimistic scenario. The detailed information on this is presented in Table 6. As it can be seen from it, in Georgia the industry sector has the greatest potential in absolute values in terms of GHG reductions (see table 6 below).

To implement Georgia’s LT-LEDS, satisfy the investment need and attain its primary goals, it is crucial to formulate funding policy and schemes. This issue is so significant for Georgia because the country, like other developing countries, is characterized by high capital costs that are a considerable barrier to attracting funds and of the development process in general.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Potential GHG emissions Reduction, Gg CO\textsubscript{2} eq. (WEM)</th>
<th>Potential GHG emissions Reduction, Gg CO\textsubscript{2} eq. (WAM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>9,984</td>
<td>29,396</td>
</tr>
<tr>
<td>IPPU</td>
<td>882</td>
<td>2,224</td>
</tr>
<tr>
<td>Agriculture</td>
<td>385</td>
<td>778</td>
</tr>
<tr>
<td>Waste*</td>
<td>701</td>
<td>1,692</td>
</tr>
<tr>
<td>LULUCF</td>
<td>3,637</td>
<td>6,244</td>
</tr>
</tbody>
</table>

Source: Sector experts’ estimations (optimistic scenario)

In this regard, it is worth noting that Georgia should follow the climate need-based finance approach to avoid irrational spending and make financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

It should also be highlighted that to ensure effective and sustainable climate funding policy, Georgia should focus on implementing the projects that have at least one of the following
features: mitigation (and/or adaptation) impacts values/indicators, SDG co-benefits, transformative change effect and offering exceptional opportunities for private sector co-financing.

Furthermore, it is important to mention that the government of Georgia should focus on strengthening the cooperation with multilateral development banks as they are the largest providers of financial resources in developing countries. For instance, their share in Central Asia and the South Caucasus region is 78% of total funds. Technology transfers should be a high priority in this regard.

There is a significant number of funding instruments that can be used to attract funds for climate mitigation (and adaptation) measures such as grants, debts and equities. The largest funding instrument by scale in the region of Central Asia and South Caucasus is the loan which comprises around 89% of the total funding in this region. It is also relevant to underline that in this region funding structure in the period of 2013-2018 showed imbalance where 76%, 19% and 5% of funds were channeled to mitigation, adaptation and cross-cutting activities respectively. So, to increase finance mobilization scale and access to funds, it is recommended to concentrate on concessional and non-concessional loans, because these are the easiest way to attract sizable financial resources for climate actions.

The general recommended steps for mobilizing funds can be summarized in the following way: The first step is to analyze the current situation including national circumstances, cost of capital, access to finance, development level of capital and money markets, and existing financial instruments. The second step is to assess the country’s regional financial flows, needs and gaps. The next step is to formulate a climate finance strategy and endorse it at the highest political level. The final step is to identify the most effective financial instrument(s) and bankable project pipelines for implementation.

In addition, it is to be noted that there are a few financial risks that should be taken into account by policymakers while implementing climate finance strategy. Some of the typical and principal financial risks for a developing country are as follows: inflation risk (that can considerably increase project costs in the future), high vulnerability towards external shocks, high political risks, exchange rate risk, investment and operational risks, project profitability risk, risks related to high uncertainty in GHG emission reductions (that can shrink potential investors and
donors/lenders willingness to channel funds in Georgia), lack of awareness of private investors, low future returns and high payback periods.

To sum up, Georgia’s climate financial strategy (CFS) describes the major policy directions and offers long-term and medium-term activities. The presented strategy provides basic information about the global climate funds and institutions. Moreover, the CFS of Georgia considers 8 barriers to climate finance and provides brief explanations on them. As it is shown in the report there are considerable barriers that should be taken into consideration by public authorities while planning and before implementing Georgia’s climate financial strategy.

In addition, the presented CFS reports 6 strategic pillars which are recommended for the government of Georgia. These pillars represent the set of long-term and medium-term actions for executing the CFS in the country. According to the given report, the government should conduct the following measures: facilitate data generation and analysis, accelerate enhancement of green financial instruments and green markets, identify priority climate-friendly projects, establish climate investment cooperation, promote the capacity building process for developing and implementing mitigation and adaptation projects and integrate green finance in the financial sector.