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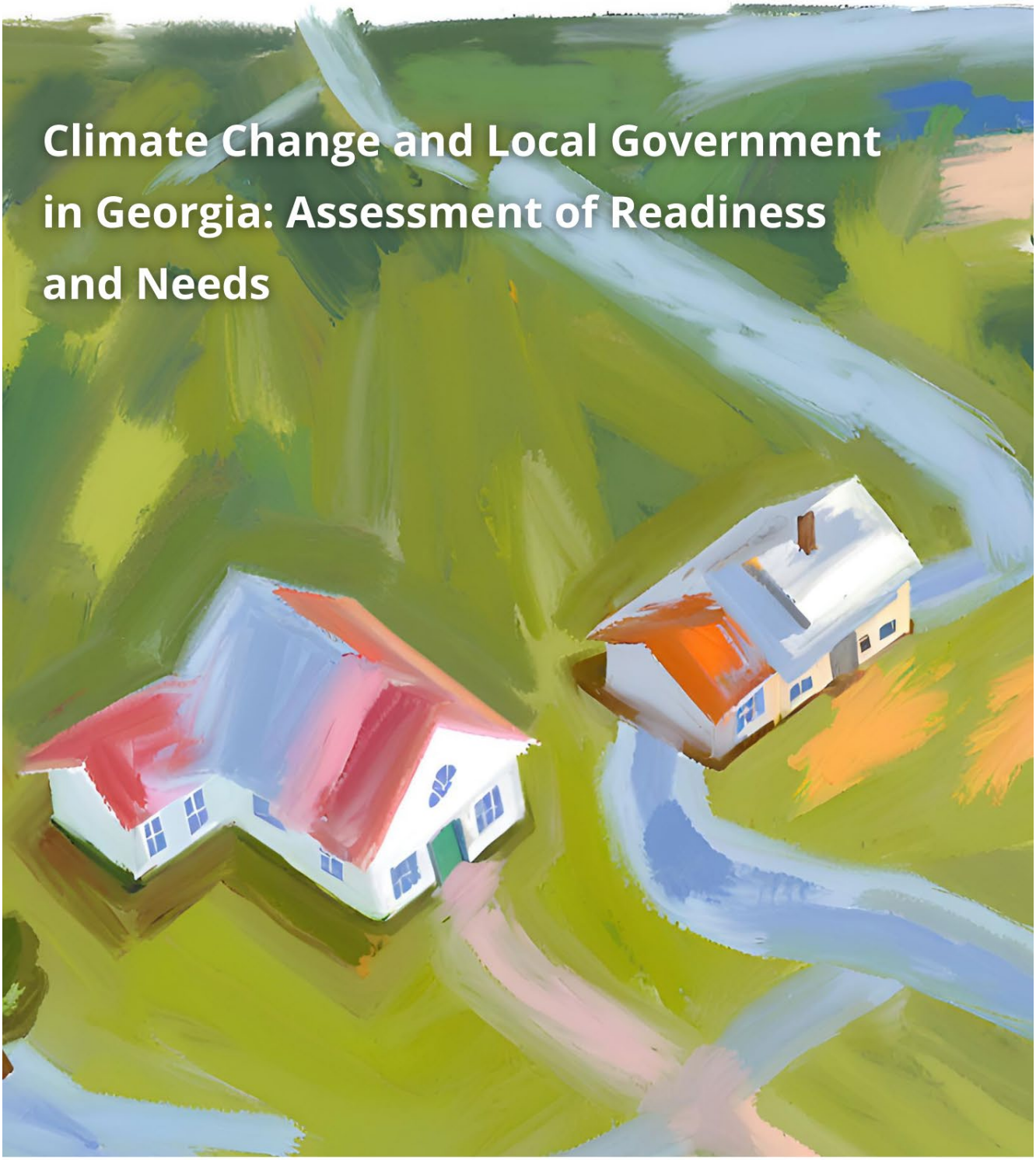
Climate Change and Local Government in Georgia: Assessment of Readiness and Needs



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Main findings of the study:

- The municipal level is poorly represented in the development and implementation of climate policy, both in terms of mitigating and adapting to climate change.
- Georgia does not have comprehensive climate change legislation nor sector-specific climate change regulations that would clarify municipal powers and responsibilities in climate change planning.
- The Local Self-Governmeant Code does not establish local government's responsibilities and/or obligations about climate change.
- Municipalities lack the resources, competence, and institutional mechanisms to assess the impacts of climate change.
- The “Covenant of Mayors” was created as the main guiding framework for local climate policy.
- The municipalities signatories to the “Covenant of Mayors” find it relatively easy to plan mitigation measures; however, they find it difficult to develop effective adaptation policies.
- In terms of an effective adaptation policy, identifying and preventing climate change-related disasters remains a particularly important challenge.
- When limited financial resources and the priority of feasibility guide planning activities, municipalities.
- The individual initiative of municipal employees largely determines the municipality's involvement in climate policy.
- Discussions about implementing the "Covenant of Mayors” are premature, as municipalities have not yet reached this stage.

Introduction

Even though the national government makes decisions related to climate change, local self-governments have a crucial role in planning and implementing climate policy. Climate policy, like many other policy areas, involves different branches and levels of government, among which complex obligations and responsibilities, and the national government makes decisions related to climate change powers related to climate change mitigation and adaptation are distributed.

The Paris Agreement underlines the importance of national and local governments working together to plan and implement climate policies. Its eleventh article emphasizes the importance of capacity building in developing countries, which implies parallel and equal institutional development of different levels of government: “Capacity-building should be country-driven, based on and responsive to national needs, and foster country ownership of Parties, in particular, for developing country Parties, including at the national, subnational and local levels.”

Local governments also have a key role in achieving the Sustainable Development Goals (SDGs), where they ensure the localization of these goals and their sensitivity to local needs and priorities.

Empowering local governments is a significant principle of sustainable development and the Paris Agreement, and it is also an important goal for ensuring the practical effectiveness of climate policy. Local governments have the closest and most direct contact with the local impacts of climate change and the affected populations. Consequently, they are in the best position to identify the most urgent needs, plan interventions appropriate to the available local resources with the participation of the parties involved, and effectively carry out the set tasks.

The role of local governments in mitigating climate change is no less important. According to research, 30%-50% of greenhouse gas emissions in various countries are subject to decisions made at the local government level. This means that local governments can take significant steps to reduce greenhouse gas emissions.

Local self-governments can plan and implement successful climate policies even if national governments do not have ambitious climate policies. Local authorities can undertake and carry out tasks beyond nationally recognized obligations in specific contexts. Such local policy development is facilitated by global adaptation and mitigation funds, as well as transnational networks that allow local municipalities to access financial and other resources needed to plan and implement climate policies.

However, the extent and form of local government's ability to plan and implement effective climate policies depends on the country's socio-economic, political, and legal environment. Accordingly, we begin our analysis of climate change-related opportunities and challenges for local government with an analysis of the institutional and legislative environment, followed directly by a discussion of municipal practice.

Research objective

The primary goal of the research is to evaluate the effectiveness of actions taken and to be taken by local governments in terms of mitigating, adapting to, and building resilience against the impacts of climate change at both central and municipal levels. This includes but is not limited to the following objectives:

- Identifying the responsibilities and obligations of local governments in managing climate change-related issues at the local level;
- Assessing the steps taken by local governments to address the climate crisis and their effectiveness (e.g., implementation of the Covenant of Mayors, mobilization of local communities, etc.);
- Evaluating the institutional and other capacities of local governments (data collection, qualified personnel, knowledge, etc.) in terms of resilience to the negative impacts of climate change;
- Identifying legal, institutional, administrative, or financial barriers that hinder the effective response of local governments to the needs of the population caused or exacerbated by climate change;
- Investigating the role and accountability of local governments in national climate policy planning.

Research methodology

The research team used qualitative research methods to achieve the study's objectives. The study was organized into two stages.

First stage of the study

In the **first stage** of the study, the main research questions were:

- To what extent is reliable and evidence-based information about climate change's current and expected impacts in Georgian municipalities? Is there knowledge about climate-related threats at a local level?
- What is the local government's role in climate change adaptation and mitigation according to the Georgian Climate Change Strategy and Action Plan?
- Who is responsible and authorized to plan and implement climate change policy at the central and municipal levels? What specific powers do they have in terms of climate change adaptation or climate change mitigation?
- What mechanisms guarantee the participation of local authorities in the development of Georgia's climate change policy and action plan, and how effective are these mechanisms?

A desk study was carried out to answer these questions, in-person interviews were conducted with climate change policy planners at the national level at higher authorities, and public information was collected from relevant ministries. See details on each stage below:

a. <u>Desk study</u>

The main research questions posed to the researchers during the desk study were as follows:

To find answers to the questions posed, the research team analyzed the following documents:

- Fourth National Communication of Georgia under the UN Framework Convention on Climate Change
- Fourth National Action Program for Environmental Protection of Georgia for 2022-2026
- Georgian Climate Change Strategy 2030 and Action Plan for 2021-2023
- Climate Change White Book
- Climate Change Green Book
- Law of Georgia on Environmental Protection
- Law of Georgia on Energy Efficiency
- Law of Georgia on the Protection of Atmospheric Air
- Local Self-Government Code

<u>b In-person interviews with national climate change policy planners at the highest authorities</u>

The research team will interview representatives from two key ministries in person: the Ministry of Economy and Sustainable Development and the Ministry of Environmental Protection and Agriculture.

The Ministry of Economy and Sustainable Development was selected because it is the lead agency of the Interagency Council on Climate Change. In addition, it exercises control and supervision over entities responsible for implementing energy efficiency measures by the Law of Georgia on Energy Efficiency. On the other hand, the Ministry of Environmental Protection and Agriculture was selected as it is responsible for organizing climate change adaptation and mitigation measures by the Law of Georgia on Environmental Protection.

Unfortunately, the researchers could not conduct in-person interviews with the Ministry of Agriculture and Environmental Protection sub-entities: the National Environmental Agency and the Environmental Information and Education Center. As the study showed, these bodies, despite general legal obligations (regarding the processing of environmental information or provision of education), these agencies do not have a formal role in directly formulating climate change-related policy at the central level, nor in its implementation of municipal bodies. This likely explains why the addressees from the relevant institutions did not wish to participate in this study.

Instead, as part of the research, an interview was conducted with a non-governmental organization that assists the Ministry of Agriculture and Environmental Protection in strengthening municipal bodies and ensuring coordination between city halls within the framework of the Covenant of Mayors.

See list of respondents below:

1. Ministry of Economy and Sustainable Development, Head of the Department of Energy Efficiency, Renewable Energy Policy and Sustainable Development – Margalita Arabidze
2. Ministry of Environmental Protection and Agriculture, Head of the primary structural unit of the Department of Environment and Climate Change - Nino Thilava

In-person interviews were conducted using a semi-structured questionnaire (see Appendix 1).

At the same study stage, an in-person interview was conducted with the official organization supporting the Covenant of Mayors—the Georgian Energy Efficiency Center (EEC). The center's director, Giorgi Abulashvili, took part in the study. In-person interviews were conducted using a semi-structured questionnaire (see Appendix 3).

c Public information requested from higher authorities

The research team requested public information from the Ministry of Economy and Sustainable Development, the Ministry of Environmental Protection and Agriculture, the National Environmental Agency, and the Environmental Information and Education Center regarding the information collected by these agencies from municipal authorities on climate change adaptation and mitigation measures.

Additionally, the team gathered municipalities' Sustainable Energy and Climate Action Plans.
Unfortunately, the research team received a response to their public information request letters from only one agency: the Ministry of Environmental Protection and Agriculture. The Environmental Information and Education Center and the National Environmental Agency directly forwarded the researchers' letters to the Ministry of Environmental Protection and Agriculture. The Ministry of Economy and Sustainable Development did not respond.

2 Second phase of the study

In the second phase of the study, the main research questions posed to the researchers were as follows:

- Overview of the main threats caused by climate change at the municipal level;
- Analysis of the problems and challenges of Georgian municipalities (excluding Tbilisi) in response to the impacts and consequences of climate change;
- Involvement of local self-governments in the development of Georgia's climate change policy and action plan;

In this study phase, desk research and in-person interviews with official representatives of selected municipalities were also conducted. Due to the study's resources, only five municipalities were selected for in-depth analysis. The municipalities were selected from among the participants of the Covenant of Mayors, including two from Western Georgia (Poti and Senaki), two from Eastern Georgia (Dusheti and Gurjaani), and one from the mountainous regions (Oni).

At this stage, only the Sustainable Energy and Climate Action Plans (SECAP) developed by two signatories of the “Covenant of Mayors” (Senaki and Oni) have been submitted to the relevant department of the European Commission for approval. The study covered both municipalities. Dusheti was particularly interesting because its mayor is the acting chairman of the "Covenant of Mayors" signatories in the Interagency Council on Climate Change. The local council has approved Poti's action plan, and the document is being finalized for Gurjaani. Detailed information about each stage of the study can be found below:

a. desk study

At this stage, the selected five municipalities will examine all the relevant documents they have worked on regarding climate change adaptation or mitigation in their respective regions.

1 Georgia’s Agriculture and Rural Development Strategy 2021–2027
2 National Plan for Climate Change Adaptation for the Agricultural Sector

Sectoral Documents

3 Georgia’s Agriculture and Rural Development Strategy 2021–2027
4 National Plan for Climate Change Adaptation for the Agricultural Sector

b. In-person interviews with local municipality representatives

Before planning the interviews, the research team identified, through interviews conducted during the first phase of the study, the circle of responsible individuals at the municipal level who could be interviewed to answer the research questions. One interview was conducted in each municipality and attended by one or several employees.

The exact list of research respondents can be found below:

1. City Hall of the Municipality of Senaki, senior specialist of the Service of Economic Development, Statistics and Property Management of the second category - Dali Kachibaya
2. Mayor's Office of the Municipality of Poti, Deputy Head of the Service for Sustainable Development and Innovation - Irakli Lezhava; Senior specialist of the Department of Infrastructure, Sewage, and Amelioration – Emzar Kupradze; Head of the Department of Innovation and Development of Municipal Services at the Sustainable Development and Innovation Service, - Teona Getia
3. Gurjaani Municipality City Hall, Senior Specialist in the issues of roads and infrastructure at the Infrastructure Division - Ledi Turashvili
4. Mayor of Dusheti Municipality - Manana Narimanidze
5. Oni Municipality City Hall, Head of the Secondary Structural Unit of the Property Management Department in the Economics Service - Irina Gobejishvili

The interviews were conducted using semi-structured questionnaires (see Appendix 2).

Research limitations

One of the study's limitations is that the researchers were not allowed to ask questions about the main threats posed by climate change at the municipal level to the National Environmental Agency and Environmental Information and Education Centre representatives. These institutions refused to participate in the study. Consequently, the assessment of their activities in developing and implementing local policies related to climate change could not be carried out.

For the present study, the municipalities that signed the Covenant of Mayors and have prepared or are preparing a "Sustainable Energy and Climate Action Plan (SECAP)" were selected for examination. Since the "Covenant of Mayors" plays a key role in climate policy, and the action plan prepared within its framework is the only document developed at the local self-government level for climate change mitigation and adaptation, the practices and experiences related to the "Covenant of Mayors" became the central focus of the research team. Studying the experiences of municipalities that are not parties to the Covenant of Mayors would provide the opportunity to compare practices and needs in a larger-scale study. Still, this aspect remained beyond the scope of the selected parameters for this research.

Another limitation of the study is that, despite the SECAP plans having entered into force, none of the city hall signatories to the Covenant of Mayors have yet moved on to concrete actions that would enable the study to analyze the challenges of implementing these plans. Therefore, given that SECAP monitoring reports do not exist in city halls, they could not be the subject of the discussion.

1. Climate policy and local self-government: legal and institutional environment

1.1. Municipalities in the process of planning national policy

Climate-change-related state policy is divided into two directions: mitigation of climate change and adaptation to the impact of climate change. When it comes to national policy development, Georgia is advanced in terms of the development of policy documents about climate change mitigation. However, Georgia still needs a national strategy and action plan for adaptation. In terms of mitigation, globally, as well as in Georgia, decreasing greenhouse gas emissions occupies the biggest part, whereas adaptation implies a combination of legal, institutional, and infrastructural interventions that would make a settlement, population, and/or the country as a whole, more resilient against the current and expected impact of climate change.

Georgia has developed a National Climate Change Strategy for 2030 and an Action Plan for 2021-2023 (CSAP)[1]Additionally, there is a Long-term Low-Emission Development Strategy (LT-LEDS) with a climate-neutral scenario and a National Integrated Plan for Energy and Climate Change (NECP, working version).

This assessment primarily examines the role of municipalities in preparing national strategies, which are being carried out in various parts of the central government. Following a legal and institutional review, we will discuss the approaches and practices existing at municipal levels for planning and implementing adaptation and mitigation policies.

To gather information on the role and level of involvement of local self-governments in the development of Georgia's climate change policy and action plan, a group of researchers interviewed both leading agencies in the executive branch and municipal governments in this area. The research aimed, on the one hand, to identify the institutional mechanisms functioning for this purpose in the country and, on the other hand, to observe the practices established during their operation.

The research showed that local governments had the opportunity to participate in developing climate change policies at the executive government level. No legal or institutional restrictions prevented them from working on strategic documents. One respondent from the participating municipalities mentioned that the central government "very often asks for their opinion" from the municipalities.

However, the study could not identify specific and formal procedures or institutional mechanisms through which the central government ensured local municipalities' involvement and respective support. Respondents confirmed that municipal involvement was weak due to the low interest of local self-government bodies or the lack of qualified personnel in their institutions. Participation was mostly in written and remote form and only when municipal authorities took individual initiatives to provide feedback.

One respondent, representing the Ministry of Environmental Protection and Agriculture, explained the passivity of the municipal level in these processes by stating that the purpose of involving municipalities in these processes is not clear:

[1] During the preparation of the assessment, the updated action plan for 2024-2025 was approved.

> "The thing is that when we are drafting this or that strategy or action plan, municipalities always have the opportunity to get involved. However, there are fewer [directions/issues] specifically tailored to the activities of municipalities in the strategies, though there may be more in the action plans."

Notably, the law foresees municipal authorities' involvement in preparing specific action plans. For example, the Law of Georgia on Ambient Air Protection defines the development of an air quality management plan and a short-term action plan as the competence of the central government. However, this law also specifies that the central government must conduct this process in agreement with the relevant municipality. It is likely that when the representative of the Ministry of Environmental Protection and Agriculture mentioned that municipalities are more involved in the development of action plans, they were referring to this type of process.

One of the international commitments created in response to climate change mitigation is the periodic submission and updating of "Nationally Determined Contributions" (NDC) reports. In this area as well, Georgia fulfills this obligation through its highest state bodies (led by the Ministry of Environmental Protection). According to representatives of the ministries involved in the study, the government needs to work on base this work on municipal-level data or plans due to the lack of relevant qualifications and information among the municipalities. Another respondent participating in the study noted that municipal bodies were not involved in preparing the first NDC report. However, they mentioned that this trend is changing. While preparing the second and third reports, there were much more intensive efforts to ensure regional involvement and organize data from the "bottom-up." Despite the above, in this case, the study could not identify specific institutional mechanisms or formats through which this exchange between the highest state bodies and municipalities would occur regularly.

1.2. Responsibilities and obligations of local Self-governments in the context of climate policy

1.2.1. Climate change without a uniform legal framework

Georgia needs comprehensive legislation to regulate climate change issues and has specific legal acts addressing climate change. Despite this, limiting greenhouse gas emissions is related to the activities of the following economic sectors: transport, buildings, energy production and transmission, agriculture, industry, waste management, and the forestry sector. Georgia has set threshold levels for greenhouse gas emissions for each sector, constituting obligations to be fulfilled nationally. However, municipal obligations related to these emissions are not clearly defined. In addition, when examining the regulating laws of each of the aforementioned sectors, none clearly outline specific state obligations regarding climate change response measures, be it mitigation or adaptation. In some of these laws, the roles and functions of municipalities in enforcing these laws need to be delineated. This is also noted in the 2023 national report on the state of the environment:

> "As for sectoral policy documents, in the vast majority of them, the threats posed by climate change are neither identified nor considered, even though each of these sectors is important in terms of both mitigating and adapting to climate change (for example, strategic documents on

general development, migration, education, and tourism do not define the risks associated with climate change and ways to mitigate them)."

Respondents link the resolution of existing legal gaps to adopting a new "Climate Change Law" planned for 2024. A Ministry of Environmental Protection representative also confirmed in discussions with the research team that the current legislative framework does not establish a system for distributing responsibilities related to climate change between central and municipal authorities. According to him, this will be a matter of primary interest in the development of the new law:

> "The Climate Law is so new that, rather than changing the [existing distribution of responsibilities], it defines the responsible agencies with precise responsibilities. As mentioned, traditional sectors have this all figured out, but in the case of climate change, such an established distribution does not exist at the legislative level.
>
> Regarding municipalities' involvement, I expect that there will be a financial obligation and a requirement to demonstrate the need for more people."

On the other hand, according to a representative of the Ministry of Economy, we should not expect the Climate Law to fundamentally change the problem of weak decentralization in this sectoral issue and create new obligations or functions that will be municipalities' direct and independent responsibility.

> “The municipalities' role is not [specifically] considered in this way, but there are activities that municipalities will have to take into account, whether they are related to water issues or others. So, it is not distinctly outlined, but it will affect them,” says the representative of the Ministry of Economy.

Until the final version of the Climate Law is prepared, it is difficult to say what this legislative initiative will change regarding the distribution of responsibilities related to climate change. Still, there is an expectation that it will create the main legal framework regulating the sector.

1.2.2. Distribution of powers related to climate change in sectoral laws

The Law of Georgia on Environmental Protection defines the organization of climate change adaptation and climate change mitigation measures as the prerogative of the Ministry of Environmental Protection. According to this legislation, no part of the environmental responsibilities is delegated to local authorities, and no article specifies the authorities and responsibilities of local self-governments in connection with any regulation. The second relevant law regulating climate change measures is the Law of Georgia on Ambient Air Protection. Here, the Ministry of Environmental Protection is also designated as the leading agency, but this law also does not highlight the responsibilities and roles of municipal authorities in regulating ambient air protection. The third relevant law is the Law of Georgia on Energy Efficiency. Unlike the previous two laws, this one envisions a role for municipal authorities in developing and implementing respective action plans. According to this law, the leading agency is the Ministry of Economy and

Sustainable Development, which is obligated to encourage municipal bodies to develop energy efficiency action plans. Municipalities must consider establishing an energy management system and conducting energy audits as part of the plan.

On the other hand, the Local Self-Government Code defines municipal bodies' responsibilities within the state governance system. However, this document also needs to articulate direct obligations for municipalities regarding the organization of climate change adaptation and mitigation measures. Nonetheless, for this research, it was interesting to observe the aspects of the code that relate to municipal authorities' powers connected to the natural environment.

The code grants local self-government units certain powers in managing so-called "local significance" natural resources (such as water and forest land funds). It also allows municipalities the freedom to undertake measures aimed at "environmental protection independently" and "creating a safe environment." However, as repeatedly noted, the legislative framework regarding specific authorities is either quite restrictive or vague, not to mention the clear delineation of specific obligations and responsibilities of municipalities from the central government. For example, the central government's prerogative is the management and control over using all other natural resources that are not of municipal significance. Additionally, issues related to licensing natural resources or their use as economic assets are not resolved at the local level. These matters are only subjects of agreement with municipal governments to ensure the participation of locals in central-level decisions. Moreover, the rights and obligations of municipalities in creating a safe environment for their residents need to be clarified. For instance, organizing environmental pollution monitoring and controlling the use of natural resources, as already mentioned, fall outside their responsibility.

The Local Self-Government Code must specify that "municipalities have the right to decide independently on any issue that is not expressly prohibited by the legislation of Georgia." The following chapters show that climate change-related measures are organized by this latter principle in the municipalities studied in this study.

As already mentioned, since economic sectors organize the limitation of greenhouse gas emissions to specific targets, it is logical that indirect responsibilities of municipalities can be found only in cases where the matter can be related to the resources at their disposal. The previous chapter mentions sectors for which the government has committed to reduce emissions. For example, one of these is the forestry sector. In this sector, the Forest Code of Georgia operates, which separately sets municipal bodies' competencies solely in managing municipal forests. However, to the extent that sectoral regulations are outdated and fail to integrate measures necessary for climate change, the Forest Code does not specify the control of municipal forest-wide emission levels and what role municipal authorities can play. Here, the main responsibilities can only be indirectly related to emissions control, but not directly and clearly. The article on municipal competencies lists responsibilities for forest protection, maintenance, restoration, forest use, ecological disasters, and natural events but does not specify the relationship between these measures and emission reduction.

Finally, it should be noted that according to the Constitution of Georgia, the separation of powers between state administration and self-governing units is based on the principle of subsidiarity, which implies the implementation of certain functions and powers at the lowest level of government from the bottom up. Higher authorities should intervene in local government only when local government units cannot resolve a specific issue. In terms of environmental protection, namely, measures related to climate change, the principle of subsidiarity is occasionally activated when, based on the “Covenant of Mayors,”

new, unrealized initiatives are established in city halls, for example, the installation of energy-efficient lamps for outdoor lighting, the replacement of municipal transport and official vehicles funds with electric vehicles, etc. From this perspective, the principle of subsidiarity in climate policy will not be frequently applied until comprehensive legislation regulating issues related to climate change delineates municipal obligations and powers more clearly.

1.3. “Covenant of Mayors": the main mechanism for planning and implementing climate change policy in local self-governments

In circumstances where the Local Self-Government Code does not address the responsibilities and authorities of municipal bodies concerning climate change and the Climate Law has yet to be adopted, the municipal policy for climate change mitigation and adaptation is largely defined by the Covenant of Mayors process.

The importance of the "Covenant of Mayors" in Georgia's climate policy is indicated by the fact that signatory municipalities are involved in key central-level processes and represent the entire municipal sector. This was the case, for example, during the preparation of Georgia's Climate Change Strategy for 2030, which specifies that "all relevant ministries and several municipalities (involved in the EU initiative - Covenant of Mayors) participated in its drafting, representing the agencies responsible for the implementation of respective activities defined by the action plan within their competence."

The working group, composed of signatories, also represents the municipal level of the Climate Change Council. The centrality of the Covenant of Mayors is confirmed by the national report on the state of the environment (2018-2021) prepared by the Ministry of Environmental Protection and Agriculture, which states that “the policy of combating the climate at the local level is determined by the documents prepared within the framework of the "Covenant of Mayors."

Overall, the "Covenant of Mayors" has 32 signatories. If participation in the Covenant of Mayors involved the preparation of Sustainable Energy Action Plans (SEAP) until 2015, these have now been replaced by Sustainable Energy and Climate Action Plans (SECAP). As of today, out of the 32 signatory municipalities, only 13 have completed work on their SECAPs. These plans are first approved at local government council meetings and then sent to the relevant EU body (Joint Research Center) for approval.

In 5 of the 13 SECAPs, the plans developed by municipal staff have been approved by the respective municipal councils. Regarding the submission of SECAPs approved by municipal councils to the relevant EU body (Joint Research Center) for approval, only the municipalities of Oni and Senaki have progressed in this process.

Regarding the resources available in municipalities for developing SECAPs, each municipality involved in the study highlighted the role of the non-governmental organization Energy Efficiency Center in their training and support. In all cases, respondents acknowledged that they initially lacked the proper knowledge to plan climate change initiatives and compensated for this gap through the training sessions

conducted by the Energy Efficiency Center. "I learned a lot and am very satisfied. At first, I didn't even know the terminology," said one respondent about the knowledge gained with the help of the Energy Efficiency Center. Nevertheless, respondents emphasized that working on the "Covenant of Mayors" plans in their municipalities was quite challenging: "It was very difficult, I'll tell you straight. It was a catastrophic process because we didn't have institutional knowledge and experience," said one respondent. On the other hand, when asked about the need for external expertise, the mayors responded that the experts from the Energy Efficiency Center fully met this need and addressed the gap. No additional resources were spent on external expertise beyond what was already mentioned.

According to the representatives from the Energy Efficiency Center and the municipalities involved in the study, in the municipalities signatories to the "Covenant of Mayors," **temporary working groups** were initially established based on relevant administrative acts to work on creating the SECAPs. After the approval of the SECAPs, working groups (often with the same members) are formed in the city halls and are responsible for implementing and monitoring these plans.

Representatives of the municipalities involved in the study note that the working groups comprised existing municipal staff. These included employees from various departments: infrastructure, procurement, finance, economics, property management, legal, etc. In one municipality, the "Covenant of Mayors" process is integrated into the relevant municipal unit (the Department of Sustainable Development and Innovation, established in 2019). However, in the same municipality where the Sustainability and Innovation Service exists to manage the Covenant of Mayors process at the local level, the SECAP action plan was approved much later, in 2023, whereas the city hall joined the Covenant of Mayors in 2017. According to employees, from 2017 to 2023, there was an extensive period of retraining of employees and carrying out certain preparatory work. On the other hand, one of the other employees mentioned that in their case, there has been an Economic Development and Statistics Service since 2017, whose charter does not specify responding to environmental problems as its responsibility. However, its employees have been leading in the Covenant of Mayors process since 2022.

Regarding **the transparency of the process of working on SECAP plans** and the extent to which the general public had access to the information discussed within its framework: Firstly, although working on SECAP plans is a voluntary decision by the mayors, this does not exempt them from the obligation to ensure public participation in the implementation of public local self-governance and to create the necessary organizational and material-technical conditions to ensure transparency in the decision-making process. Consequently, the research team was interested in how the city halls participating in the "Covenant of Mayors" ensured the transparency of working on SECAP plans. Several respondents noted that they involved local civil society organizations in the "event planning part" but did not include them in the "description part." In other municipalities, it was noted that environmental expertise is very rare in civil society organizations, and such involvement from their side did not occur. One respondent also mentioned that the city hall employees did not expect any additional contribution or benefit from civil society organizations because all the necessary data and resources for preparing the SECAP were solely found within the city hall. None of the respondents had experience organizing public discussions of the plans or disseminating information about them to the broader public. However, they noted that since the plans are discussed in municipal councils, the public has the opportunity to participate in the consultation process by getting involved there.

As for the **implementation** of SECAP plans, there needs to be more accumulated experience in the city halls to make it a subject of thorough study. Even in municipalities where working on the plans has been completed, they should have already started working on implementation. However, a small survey

conducted across the city halls showed that this stage has yet to be reached in some municipalities because the new plans were approved only a few months ago. It is interesting to see how roles will be distributed directly implementing SECAP plans. Likely, each obligation outlined in the plan will first be assigned to the relevant department for execution, and then their monitoring will be carried out through the working group.

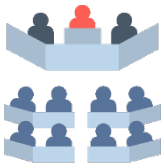
Respondents expressed their concerns that **monitoring** the implementation of activities agreed upon within the "Covenant of Mayors" framework and reporting on them will be associated with certain difficulties. According to one respondent, since participation in the "Covenant of Mayors" is voluntary and not mandatory, it is possible that the commitments made. The accompanying institutional memory might be lost with changes in political leadership (mayors): "When a new mayor comes in, they forget, start from scratch [working on the issue/implementing the plan]; the issue of monitoring and reporting is very disorganized institutionally." Indeed, although among the municipalities signatories to the “Covenant of Mayors,” some municipalities signed the agreement in 2015, only one monitoring report has been created (by Tbilisi Municipality). Notably, according to the Green Book of the Climate Change Law, a relevant methodology was approved by the order of the Minister of Environmental Protection in 2022 to implement a reporting system for municipalities that are signatories to the "Covenant of Mayors." However, neither the order nor the monitoring reports were prepared since they are publicly available. The Ministry of Environmental Protection has not provided the research team with monitoring reports in response to public information requests.

As the research has shown, the Covenant of Mayors plays a significant role in gathering and accessing information related to climate change; frequently, it is the primary tool for mobilizing sectoral expertise and resources in Georgian municipalities. By doing so, the Covenant of Mayors fills a crucial gap and creates the necessary groundwork for developing and implementing effective climate policies in the future.

However, the centrality of the Covenant of Mayors in Georgia's municipal climate policy is also problematic and carries several significant risks. If in other countries, the Covenant of Mayors defines additional obligations for municipalities, in Georgia, it is often the only functioning mechanism for municipal involvement in climate policy. Therefore, the Covenant holds a more significant, in some sense even a key function in Georgia, which is markedly different from its role in other countries.

At the same time, the Covenant of Mayors creates a practice in which the non-governmental sector takes on the role of supporting and coordinating municipalities. Today, the non-governmental sector performs similar functions in many areas – it provides local government bodies with reform proposals, offers technical support, and, in some cases, takes on the supervision of reform processes. The Covenant of Mayors process also establishes similar practices in climate policy. All interviewed municipalities noted that the impetus for joining the Covenant of Mayors and the resources needed for the obligations were received from the "Energy Efficiency Center" and several partner non-governmental organizations.

The leading role of the non-governmental sector in municipal climate policy calls its sustainability into question, as the non-governmental sector is financed unstably and relies on donor support. Moreover, the Covenant of Mayors does not cover all municipalities, which means that municipalities not participating in the Covenant are highly unprepared for climate change.



1.4. Governmental council on climate change and the role of municipalities

During the tenure of Prime Minister Giorgi Gakharia, the Government of Georgia established the Climate Change Council in January 2020 through a governmental decree. The council comprises eight ministries and is chaired by the Minister of Environmental Protection and Agriculture of Georgia.

The Coordination Group is an advisory body of the Council on coordination issues between state and local self-government bodies in the field of climate change. It consists of the mayors of municipalities that are signatories to the Covenant of Mayors, the Deputy Mayor of Tbilisi Municipality, and state representatives.

The Working Group is an advisory body of the Council designed to develop specific climate change policy issues in economic and social sectors. It comprises public officials, experts, and representatives of the academia. The Working Group has been established, and the Council has approved its composition.

Source: Government of Georgia Decree No. 54 on establishing the Climate Change Council, January 23, 2020, Article 2, Paragraphs 4 and 5.

In addition to the relevant ministries, the Council also includes the so-called Coordination Group, consisting of municipalities that are signatories to the Covenant of Mayors. According to this regulation, the Coordination Group allows municipal authorities to inform higher state bodies about their projects, needs, and priorities related to climate change and request additional support for implementing SECAP plans.

On the one hand, the Council is the only high-level political forum where municipalities can discuss climate change-related actions with representatives of the central government. However, it is noteworthy that the Council's regulation only permits the participation of municipalities involved in the Covenant of Mayors (which constitute half of the total number of municipalities), while all other municipalities are excluded unless they are invited by the Coordination Group in agreement with its head as "non-member individuals."

According to the Council's regulation, meetings should be held every six months unless scheduled more often if deemed necessary. Nonetheless, according to public information provided by the Ministry of Agriculture and Environmental Protection in February 2024, the Council has only met twice: in February 2021 and January 2023 (after the appointment of the new Prime Minister, Irakli Garibashvili, in February 2021, it has met only once), while it should have met at least eight times by now. The minutes of the Council meetings are not publicly accessible through open sources, but the research team was able to obtain them by requesting public information from the Ministry chairing the Public Information Council.

The analysis of the minutes reveals that the first Council meeting was held at the ministerial level, while the second was conducted at the deputy level. According to the regulations, deputies also have voting rights. Still, every Council member chose to participate through their deputies indicates that the Council meeting is not perceived as a significant political format, either collectively at the government level or by individual ministries.

Notably, the chair of the Coordination Group of Covenant of Mayors municipalities, Irakli Tabagua, attended the first Council meeting, but the chair did not attend the second meeting. According to the regulations, the chair of the Coordination Group is elected for one year by a majority vote of the attending members of the Coordination Group. However, the minutes do not indicate who was elected chair after Irakli Tabagua. The regulations state that "the decisions of the Coordination Group and Working Group(s) are formalized as proposals to the Council," which has not yet occurred according to the existing minutes. According to the participants in the research, the current chair of the Coordination Group is the Mayor of Dusheti, Manana Narimanidze. In an interview with Manana Narimanidze, she stated that her primary focus is increasing the number of municipalities participating in the Covenant of Mayors.

It is worth noting that the work of working groups is central to the functioning of the Council, which it creates to carry out specific tasks with the help of experts or representatives of the scientific community. Analyzing the agenda and minutes of the first Council meeting reveals that no Working Group or Coordination Group was formed in 2021. At this stage, the Council has also not had a precedent for initiating any new issues, apart from the formal approval/adoption of already prepared documents submitted by ministries for decision-making by the Government of Georgia, as outlined in the Council's regulations. On the other hand, in 2023, three years after the creation of the Council, a second meeting was held, which was not dedicated to discussing any new initiatives but rather to present the Council's mandate by the Ministry of Environmental Protection. Unlike the first session, at the second meeting, it was decided to create a Climate Finance Working Group and a Climate Technologies Coordination Group (according to the Council's regulations, the latter should involve municipal representatives participating in the Covenant of Mayors. However, no representative from any municipality provided the research team with information about this Coordination Group). Since information about the activities of these groups is not yet publicly available, their disclosure will likely occur after the next Council meeting.

Coordination among city halls on climate change

Out of the five municipalities we studied, only in 1 case was it possible to interview the mayor. In all other cases, the research team spoke with staff members who are part of the Working Group established within the framework of the "Covenant of Mayors." The researchers were unable to gather sufficient information on the nature of the involvement of mayors within the framework of the Climate Change Council if such opportunities truly exist.

Therefore, at this stage, it is nearly impossible to determine the extent to which mayors are involved in the Council's Coordination Group or other formats to exchange information, share experiences, and align collective initiatives to present to central government bodies. However, beyond formal mechanisms, the municipal staff interviewed confirmed that through meetings organized by the Energy Efficiency Center and the use of communication channels, they have successfully exchanged practical information among themselves and hope these channels will be maintained after the completion of the SECAP plans (during the implementation phase).

In turn, the research team was interested in how the Ministry of Environmental Protection itself handled the functions of collecting, centralizing, and coordinating information and activities related to climate change documents from municipalities. In an interview, a representative of the Ministry of Environmental Protection noted that working specifically on climate change as a cross-cutting or global (comprehensive) issue with municipalities is impossible due to the limitations of national-level legislation. However, they mentioned that appropriate coordination is carried out with local self-government bodies in relevant sectoral directions:

> “Climate change is not currently our national domain. When discussing agricultural sectors, forest management, etc., it is understandable that more attention is paid to local directions... We have a particularly active relationship with municipalities regarding water resource management because we have developed and approved a new water law…”

Additionally, in response to the public information request letter, the Ministry denied its coordinating role in the Covenant of Mayors process and the fact that other climate change-related policy documents at the local level, including climate change adaptation plans or monitoring reports, are not kept in the Ministry. See the excerpt from the public information letter:

> The Ministry of Environment and Agriculture does not coordinate the preparation/implementation of Sustainable Energy (SEAP) and/or Sustainable Energy and Climate (SECAP) plans and environmental or directly climate change-related political documents by local entities of the "Covenant of Mayors" member municipalities. However, the Ministry observes the mentioned process.
>
> Based on the above, since the municipalities are not accountable to the Ministry, we do not have the climate change adaptation plans and monitoring reports of the municipalities you requested. About the mentioned issues, contact the local municipalities.

2. Impact of climate change in regions of Georgia

In the absence of a national adaptation plan, USAID and Athea's 2016 “Climate Change Adaptation Guide” should be considered the most comprehensive study of regional vulnerability. The guidance contains a range of important information about both the physical hazards associated with climate change and the associated social and economic risks. Unlike the Fourth National Report, which is very much a national document, the guide's authors have tried to create as detailed an assessment of the problems in various municipalities as possible based on the available data. In this way, the guide shows how nuanced assessments of the local impacts of climate change can be made by maximizing available data.

The guide's authors draw attention to the difficulties associated with assessing the impact of municipalities and the lack of key social and environmental data in this regard: “A country's municipalities are the main administrative units of self-government according to which statistics should be collected. However, statistics at the regional level are much more diverse and accessible. At the same time, it is at the municipal level (the level of the elected body of self-government) that decisions necessary for the socio-economic development of municipalities should be made. [...] Based on the fact that actions to adapt to climate change must be implemented at the local level, a statistical information base should exist not only at the municipal level but also at the level of territorial units of the municipality. However, collecting such information from official sources today is almost impossible” (p. 16).

Despite this limitation, the guide provides a starting point for understanding what types of threats are associated with the increasing impacts of climate change and in which municipalities. In addition to the "Climate Change Adaptation Guide," there are various donor-supported impact assessments, some of which focus on regional impacts and some of which are sector-specific. These are, for example, the "National Climate Change Adaptation Plan for the Agricultural Sector," prepared in 2016 with the support of the Global Environment Facility (GEF), and the "Climate Change Adaptation Strategy for Upper Svaneti," developed with the support of the UNDP which was created during the preparation of the "Third National Notice of Climate Change." In addition, national reports on the state of climate change and related threats are in several sections. A full assessment of Georgian municipalities' vulnerability is beyond this paper's scope. Still, it is possible and important to discuss some key observations about the impact of climate change on Georgian municipalities.

The current impact of climate change is being felt throughout Georgia. The average temperature in Georgia has increased by 1 degree, as has the wind strength and the frequency of forest fires. Various studies indicate erosion processes, melting glaciers, agricultural land degradation, and long-lasting and powerful heat waves.

The consequences of climate change are quite inhomogeneous. Climate change affects different regions differently. For example, Western Georgia becomes rainier, and Eastern Georgia becomes drier. Each region faces different challenges depending on local topography, ecology, and hydrology. For example, the most important issue for the municipalities of the Black Sea coast is the safety of the coastline. In Kakheti and South-Eastern Georgia, there is a tendency towards desertification.

Climate change poses a threat to key sectors of the Georgian economy. Climate change negatively affects economic sectors important to various municipalities, such as winter tourism in mountainous regions, agriculture, and livestock throughout Georgia. At the same time, climate change threatens the country's key infrastructure - roads, bridges, tunnels, and much more.

The risk of landslide-gravity phenomena is especially high. Due to the spread of the mountainous landscape in Georgia, the threat of the development of landslide-gravity phenomena is especially important. According to the UN Development Programme, "Today, up to 50 thousand landslide houses have been registered in Georgia. In their danger zone, there are up to 2,000 settlements with more than 200 thousand population. The total area of land damaged by the landslide exceeds 1.5 million hectares. According to the Adaptation Guide, "landslide-gravity phenomena prevail in the following regions and municipalities: Adjara (Khulo, Shuakhevi, Keda, Khelvachauri, Kobuleti), Mtskheta-Mtianeti (Dusheti, Tianeti, Mtskheta), Racha-Lechkhumi (Ambrolauri, Oni, Tsageri), Imereti (Kharagauli, Chiatura, Sachkhere, Vano, Bagdati, Tskhaltubo, Khoni), Guria (Chokhatauri, Lanchkhuti, Ozurgeti), Samegrelo (Zugdidi, Tsalenjikha, Chkhorotsku, Martvili), Shida Kartli (Gori, Khashuri, Kareli), Samtskhe -Javakheti (Adigeni, Borjomi, Aspindza, Akhaltsikhe), Kvemo Kartli (Tetritskaro)." At the same time, the frequency of landslide-gravity phenomena, as well as the associated losses and casualties, is increasing.

3 Climate policy in Georgian municipalities

3.1 Municipalities' ability to assess climate-related risks

According to the Constitution of Georgia, monitoring the state of the environment falls within the jurisdiction of Georgia's highest state authorities. More precisely, the responsibility for preparing information on the state of the environment lies with the Ministry of Environmental Protection. Consequently, at the level of local self-government units in Georgia, collecting information on climate change's current and anticipated impacts is voluntary. It relies on the independent initiatives of specific municipalities.

Georgian municipalities lack institutional practices or mechanisms for studying and assessing the impacts of climate change. They do not have the capability or resources to monitor climate change's current or projected effects. As a result, at best, they depend on information provided by others - donors, the non-governmental sector, or the central government; at worst, they have no access to information related to climate change's impacts.

One of the subdivisions of the Ministry of Environmental Protection, the National Environmental Agency, is one of the main sources of information for monitoring the state of the environment at the local level. The National Environmental Agency sends periodic notifications to municipalities, providing reports on the state of the environment in areas where monitoring is conducted. Additionally, the agency responds to requests from municipalities to obtain specific information about the state of the natural environment through expeditions to their regions.

The climatic, landscape, geological, and ecological diversity of Georgia's municipalities and the highly varied impacts of climate change across Georgia's territory make the collection of detailed and sensitive data on climate change particularly important. However, the quality, quantity, and availability of data related to the impacts of climate change remain problematic, as confirmed by various assessments and reports. For instance, the National Report on the State of the Environment (2018-2021) indicates that the lack of sufficient data is a challenge in assessing the condition of surface waters (“With the existing data, it is difficult to discuss the dynamics of quantitative changes in water resources in Georgia,” p. 59), in assessing the condition of groundwater (“Due to insufficient data on the qualitative characteristics of underground fresh drinking water, it is currently not possible to fully assess the condition on a nationwide scale,” p. 69), in researching biodiversity (“Currently, the challenge is the scarcity of data, which is due to the limited scope of existing monitoring and the inability to monitor all necessary parameters,” p. 98), and in describing the condition of the land (“There are no updated data on land degradation,” p. 100), etc.

At the municipal level, the lack of information and data related to climate change impacts is confirmed by those municipalities' representatives who needed to collect and process such information while preparing SECAPs under the Covenant of Mayors framework. In such cases, they rely on the “Ministry of Environmental Protection Bulletins,” occasional research teams sent by the National Environmental Agency or the Ministry of Environmental Protection and Agriculture, old studies prepared when local geological services were still operational, limited local experience, information obtained from training,

and data collected through various donor-supported projects. There is no uniform practice or mechanism for mobilizing and processing this type of knowledge and information.

Although there is no regular practice of systematic study and assessment of climate change impacts, respondents interviewed during the research confirm that the effects of climate change are tangible and noticeable. Repeated floods, more frequent extreme events, unusual weather for the region, increased landslide processes, and other manifestations are pushing municipalities to work on climate change. Climate change is already creating fiscal problems as well, as one respondent notes, in their municipality, "year after year, our budget is spent on infrastructure, which is then constantly damaged. It can be said that it is always the same work - bank protection and cleaning works..." While the legislation does not obligate municipalities to adapt, and public awareness of the issue is low, the impact of climate change itself becomes a factor that indicates the necessity for some municipalities to take steps in this direction. One respondent notes, "Whether we signed the “Covenant of Mayors” or not didn't matter. Adaptation measures were still being implemented because the natural disasters were troubling us."

Considering the existing practices and experiences, the current state of studying and assessing the impacts of climate change at the local self-government level indicates several significant shortcomings:

Municipalities do not have the tools for studying and assessing impacts. They rely on information prepared and provided by the central government or on assessments prepared with the support of donors or non-governmental organizations. The impact is assessed not regularly and comprehensively but episodically and partially. Respondents note that the local state of the environment is described sporadically during the planning of an infrastructure project or within the framework of a special state event. At the same time, the existing assessments of climate change impacts are not sufficiently detailed, either geographically or sectorally; they cover a broad area of research and have a large scale. Consequently, the available information on impacts does not allow for planning effective adaptation measures.

3.2 Planning and implementing climate change-related measures

Given that municipalities struggle to describe the current and projected impacts of climate change and assess their vulnerabilities, it is particularly interesting to see how they plan response measures in terms of mitigation and adaptation. In the mitigation part, the "Covenant of Mayors" provides a more or less formulaic format within which municipalities inventory their properties and assess the related emissions. This task is simplified by the fact that the mitigation aspect of the Covenant of Mayors is limited to the assets directly owned by the municipality.

In this context, municipalities describe emissions coming from major sectors such as buildings, transportation, street lighting, and others. With the help of electricity supply companies, they collect information on consumption and, using standard formulas, link it to greenhouse gas emissions. As a result, planning measures in the mitigation sector is a straightforward process that municipalities manage with the assistance of the Energy Efficiency Center.

Suppose mitigation measures are largely uniform and formulaic. In that case, adaptation planning requires further consideration as it must take into account local circumstances, both in terms of existing risks and in designing the measures needed to respond to them. This means that developing adaptation measures is more complex due to the importance of taking into account local circumstances. A survey respondent also talks about the difficulties associated with planning the adaptation part:

> "Adaptation is the most difficult thing. When we move on to adaptation, we will be doing very well. Right now we're mostly focused on mitigation. Taking care of something locally, extinguishing something locally, and switching to adaptation already means that we are very good and are at a very good level."

As a result, in terms of the balance between adaptation and mitigation, compliance with the action plans prepared under the Covenant of Mayors leads to several conclusions:

The number of mitigation measures in action plans exceeds the number of adaptation measures. For example, the action plan of the municipality of Oni includes 25 mitigation measures and only five adaptation measures. In the municipality of Senaki, the number of mitigation measures exceeds twice the number of adaptation measures. The initial goal of the Covenant of Mayors was to reduce greenhouse gas emissions. Only later was the scope of the agreement expanded to include a section on adaptation to climate change. In addition, a methodology for preparing action plans that begins with a greenhouse gas inventory makes it easier for municipalities to plan mitigation measures. Given these circumstances, it is unsurprising that the number of adaptation measures is less than that of the mitigation measures. The prioritization of mitigation is also aided by the fact that more documents and processes are associated with mitigation at the central government level.

Records of adaptation measures tend to be general and only, in some cases, contain commitments for the implementation of specific projects. Mitigation measures are more detailed and nuanced than adaptation records, which are often limited to general plans such as "create green space" and "create public space." For comparison, the same municipality's action plan includes detailed mitigation measures laid out in specific time frames and by sector. **The number and scale of adaptation measures do not respond to the scale and variety of negative impacts associated with climate change.**

3.3 Climate change and natural hazards

As mentioned above, one of the most alarming impacts of climate change in Georgia is related to the frequency of extreme events and the increase in the intensity of gravity-geological processes. The frequency of floods, landslides, and other extreme events is sharply increasing in Georgia. The population and the country's key infrastructure are in the danger zone. Today, more than 1,000 settlements are at risk of mudflows and landslides. Risk zones are scattered throughout Georgia and are populated by tens of thousands of residents: "Landslide-gravity processes are observed in all climatic and geomorphological zones of Georgia, from the coast to the alpines. More than 50,000 territories of varying degrees of dynamic and high danger have been registered, the total area of which exceeds 1.5 million hectares, and up to 70% of dynamic landslides are recorded in the areas of settlements, agricultural fields, and

infrastructure. There are about 2,000 settlements with a population of more than 200 thousand people in the immediate danger zone of landslide-gravity phenomena, as well as the territories of central highways, oil and gas pipelines, and large hydrotechnical reservoirs."

A report prepared by the National Environmental Agency in August 2023 on the events in Shovi names the "negative impact caused by climate change (warming, changes in atmospheric precipitation patterns, etc.) in recent periods" as one of the factors that triggered the disaster. This is echoed by a statement from the UN representation, which says that "the landslide in Shovi was caused by intense precipitation and natural river dams. This is a stark reminder of the growing impact of climate change not only for Georgia but for the entire world. Such tragic events underline the necessity of a unified global effort towards climate change mitigation, strengthening resilience, and reducing disaster risk."

Respondents interviewed as part of the study noted that natural disasters that occurred in their and other municipalities, especially the tragedy in Shovi, put the topic of natural disasters on the agenda. This observation confirms a pattern in the environmental literature that the frequency of extreme events and natural disasters significantly increases awareness about climate change. However, increased awareness does not automatically lead to systemic institutional responses.

A primary challenge is the zoning of natural hazards. With the support of the United Nations Development Programme (UNDP) and others, a project has been underway for several years ("Strengthening the Climate Adaptation Capacities in Georgia"), one of whose goals is to prepare a detailed map of natural hazards. This map, with high detail and integrated climatic components, should compile information related to natural hazards, fill the gaps in sectoral data, and improve knowledge about anticipated threats. It should significantly surpass the Natural Hazards and Risk Atlas published in 2012**.**

However, the preparation of the map is hindered by deep structural and institutional problems, including "the lack or scarcity of knowledge and experience in applying internationally-based methodologies for flood and multi-hazard assessment, zoning, and mapping in state agencies, primarily the National Environmental Agency and local government bodies, as well as in the non-state sector (e.g., academic and research institutions, non-governmental organizations, private consulting companies)." At the same time, according to preliminary assessments, "the information and data on climatic, geographical, topographical, and geological parameters needed for the zoning and mapping of natural hazards caused by climate change in Georgia are insufficient."

In 2017, the "National Strategy for Disaster Risk Reduction" and the 2017-2020 Action Plan, which also considers climate change-related risks, were approved. The strategy emphasizes the role of local self-government in reducing disaster risk and establishes that "the Government of Georgia commits to assisting local self-government bodies through defining general disaster risk reduction policies at the national level and introducing a unified methodology for integrated local risk assessment, as well as developing local disaster risk reduction strategies and action plans." According to the strategy:

> It is important that at the local level, self-government bodies conduct hazard assessments, which inherently include identifying the type of hazard, identifying risk factors, determining the probability and impact, identifying vulnerabilities, and setting priorities. Implementing these measures allows for the identification of risks.

Apart from assessment, the strategy also stipulates that local self-governments should have a key role in risk reduction:

> Self-government bodies at the local level need to ensure the prevention of risks from already identified threats. Additionally, it is necessary to assess the capabilities of local self-government bodies, prepare the appropriate resources (financial and material), and plan/implement all measures that will make it possible to avoid or reduce disaster risks.

To this end, "the Government of Georgia considers it crucial that the development of the human and material capabilities of the self-government body at the local level continues uninterrupted." This approach is in line with international principles of disaster risk reduction and sustainable development goals.

However, in 2020, the State Audit wrote about the strategy and action plan that "the information presented in the documents needs detailing and improvement. Specifically, the risk reduction strategy does not take into account all significant issues for flood prevention. The action plan is incomplete, and only a small part (16%) of the outlined measures have been implemented. A significant portion of the issues provided for in the plan has been postponed and remains unfulfilled." The status of progress achieved since 2020 is unclear, as neither the updated action plan nor the performance report for 2017-2020 is available. In February 2024, within the framework of an inquiry by the Georgian Young Lawyers' Association (GYLA), the National Security Council noted that "the process of updating the threat assessment document is currently in its final stage, after which the process of developing the National Disaster Risk Reduction Strategy and action plan will begin."

Along with zoning, the creation of an early warning system has become a key and long-term process. The budget for a project supported by the Green Climate Fund (GCF) and the United Nations Development Programme is $27 million, and its goal is "to develop and implement an integrated climate risk management (CRM) approach. This approach will contribute to risk reduction, prevention, and preparedness by creating a multi-hazard early warning system and using climate information in planning and decision-making processes across all sectors." At this stage, the early warning system is installed only in the Stepantsminda municipality, however, by 2026, such systems should cover the basins of 11 major rivers in Georgia. Simultaneously, since 2014, automated hydrometeorological observation systems have been developed.

The establishment of the early warning system is also part of the latest government program. The document states: "Against the backdrop of global climate change, the trend of increasing frequency and intensity of these events is noticeable both worldwide and in Georgia. Therefore, the existence of an effective early warning system represents a crucial measure of national and societal importance. The improvement of multi-hazard early warning systems will continue across the country."

The improvement of the hydrometeorological network and the establishment of the early warning system are currently planned. Simultaneously, municipalities are preparing emergency management plans with assistance from the Ministry of Internal Affairs. The preparation of emergency management plans is part of the obligations outlined in the Law on Public Safety. This law also includes the preparation of a safety passport and other sectoral documents related to threats and emergencies. However, the Law on Civil Safety and interviews with surveyed municipalities indicate that these documents are less focused on climate change and natural hazards, primarily focusing on the response phase.

To study a specific threat, municipalities have the option to refer to the National Environmental Agency, which can study individual problems and prepare reports.

In addition, one respondent noted that awareness of geological hazards pushes the municipality towards "greater caution," which is reflected in giving more attention to geology in the permitting process.

Overall, municipal policy regarding natural hazards is less prevention-oriented. Emergency management plans improve response protocols, but implementing proactive preventive policies remains a challenge. The State Audit Office of Georgia assessed the ratio of municipal costs between flood prevention and damage compensation and found that in some municipalities, such as Lanchkhuti, Tsageri, and Dusheti, the amount spent on damage compensation far exceeds the funding for preventive measures. According to the audit report, "Analytics shows how important it is to allocate more funds and resources to preventive measures. The modern world has shifted from a crisis management model to a risk management model, which entails allocating more funding to preventive measures." The same audit indicates that responsibility for preventive measures is fragmented across different agencies, and resources are scarce, both financially and institutionally.

In the prepared SECAP, the focus on mitigating climate change, with relatively fewer measures considered for adaptation, contributes to the deprioritization of preventive policy. To avoid this, it is important to allocate more resources to adaptation and proactively work on assessing natural hazards and preventing disasters.

3.4 Financial resources

Even though the Covenant of Mayors is also a mechanism for raising funds and, at best, municipalities should perceive it not as an additional expense, but as a source of additional income, the lack of funds significantly limits the variety and scale of planned activities. As one municipality employee interviewed within the framework of the study notes, there are two different approaches:

> One - write in your strategy only what you have the funds for and ensure that you can execute it. And two - have an ambitious plan, because if you have an ambitious plan, someone might get interested and get involved to make it happen. If you're not ambitious, you'll never attract donors. But it's your risk when you write like this. I didn't take that risk when preparing [SECAP], so to speak. Also, it was an election year at the time. There was no mayor, just an acting one. I didn't know the new mayor's vision, maybe they had better ideas than me. So, I decided to include only what is truly feasible.

The same is confirmed by another respondent:

> We drafted a realistic plan as much as possible, considering that you might have an ambitious plan, but it would be challenging in terms of evaluation/monitoring. Therefore, we chose to include activities that are as realistic as possible. There are always risks in terms of finances. Our plan may be as realistic as possible, but there is always a risk.

In various municipalities, it was considered financially unrealistic to include the construction of windbreaks, large-scale infrastructure works, renovation of large buildings, renovation of municipal vehicle fleets, and other activities in the SEAP. Overall, there is a sense among the surveyed municipalities

that large-scale adaptation measures exceed municipal resources and are largely the responsibility of central authorities.

The general fiscal condition of municipalities - the fact that they have small budgets, of which an even smaller portion is the municipality's revenue - significantly limits their ability to plan and implement effective climate policies. When discussing the financing of the measures considered in the SECAP, representatives of the surveyed municipalities noted that they would need support from the central government and donors, as they can only handle the lowest-cost measures with their local budget.

In certain cases, it is also problematic that measures related to climate change are not identified as such because individual employees might see infrastructural or energy efficiency measures as "purely engineering/technical work," which complicates reporting and analysis. Only those measures directly and solely related to environmental protection are perceived as environmental measures, and not everything responds to environmental challenges or indirectly contributes to improving environmental conditions. The national report on the state of the environment (2018-2021) also discusses this problem, noting that "in some documents, planned activities that are directly related to climate change mitigation and adaptation are not identified as such, which makes it difficult to determine climate-related measures and, therefore, the costs borne by the state (p. 188). Climate marking of municipal budgets in terms of adaptation and mitigation would facilitate the analysis of municipal expenditures, but such marking practice does not yet exist.

The problem of insufficient resources needed to respond to climate change stems from the overall weakness of decentralization, which is accompanied by fiscal, political, and administrative constraints. According to the Constitution of Georgia, "the state ensures the correspondence of the financial resources of a self-governing unit with the powers of the self-governing unit as defined by organic law." In most cases, this implies that funding is largely allocated for fulfilling those responsibilities clearly defined in the local self-government code, while activities beyond that, including climate change adaptation and mitigation measures, remain secondary.

However, the law only distinguishes between the funding sources of the state and the autonomous republics and does not separately identify municipal funding sources as one of the criteria for delineating competencies in the field of environmental protection. This situation also arises from the fact that local self-government is funded by the central state budget, whereas the opportunities for local governments to have independent revenues are limited and mostly involve only fragmented and small-scale grant funding. At the same time, it is known that the funding for municipalities does not consider the proportional distribution of state budgetary funds based on the output or contributions to the economy by the self-governing units.

The scarcity of resources to respond to the impacts of climate change at the local level creates numerous problems, ranging from the deficit of infrastructural or engineering solutions to the lack of scientific data and the necessary qualifications and infrastructure for monitoring the natural environment. Interviews with those local self-government bodies that voluntarily organize work on the current and anticipated impacts of climate change showed that they experience a severe deficit of financial, human, and administrative resources to fully conduct these processes. According to them, this is primarily due to the legislative framework, which does not mandate work on these issues at the local level and is voluntary. On the other hand, respondents highlight the overall insufficiency of municipal budgets, which creates the possibility of financing SECAP plans developed within the framework of the "Covenant of Mayors" for

only a few tens of thousands of lari and excludes funding for most of the needs identified during the “Covenant of Mayors” process.

3.5 Human resources

In most municipalities, there is no full-time position responsible for activities related to climate change. Many municipalities also lack a general environmental specialist position. The work related to the obligations outlined in the "Covenant of Mayors" is taken on by employees of various municipal departments, such as the Sustainable Development and Innovations Service (Poti), the Infrastructure Service (Gurjaani), the Economics and Property Management Service (Senaki), and others. For these employees, working on climate change is an additional responsibility they handle alongside their regular duties.

Balancing climate change with other responsibilities is challenging, both in terms of time and expertise. Without a full-time position, municipal employees, who are already managing a large volume of work, have to take on additional tasks that often do not relate directly to their primary specialty and/or education.

One of the fundamental issues for addressing personnel shortages is education in the field of environmental protection. According to the environmental protection law, the country has a unified system of environmental education, managed by the Environmental Information and Education Center. However, according to surveyed respondents, retraining local government employees while developing plans related to the Mayors' Agreement was only possible with the help of the Energy Efficiency Center.

Employees of the surveyed municipalities note that a special position, the primary and priority responsibility of which would be working on climate change, would facilitate the planning and implementation of mitigation and adaptation measures. The creation of such a position would be particularly important if the work on climate change in municipalities expands and intensifies. In this regard, the findings of this research confirm the plan included in the white and green books of the climate law to create a new position related to climate change in municipalities.

Discussing the expansion of existing staff, one of the respondents recalls historically existing local geological services and points out that restoring them and similar services would increase the competency within municipalities: "We don't have anything like that at all now; it used to be called the geological service. I don't know what it should be called now, but I think these should also be restored."

It is also important that work on climate change is perceived not as an independent field of activity but as a universal responsibility of all municipal services. As part of the interview conducted during the study, one of the respondents strongly expressed this and noted that any climate action is associated with one or more services of the municipality. For example, the organization of work on embankments may intersect with the activities of the infrastructure service, and energy efficiency may be increased with the property management department. It is, therefore, important that existing states and agencies become more aware of climate change and participate in the planning and implementation of appropriate measures.

Conclusions and recommendations

Interviews and desk research conducted by the research team highlight several key needs that, if addressed, will help the municipal sector become more involved in climate policy and plan and implement climate change mitigation and adaptation measures. Conversations about these needs are especially important when working on climate legislation. According to the 2023 green and white books, this new legislative initiative should reasonably allocate responsibilities and obligations related to climate change among different parts of the state. Therefore, talking about the needs of local governments in this context is especially useful and timely. Climate legislation could address many of the recommendations listed below, while some of them are linked to other structural and institutional changes.

I. Lack of decentralization:

- **Increasing the role of the municipality in matters of disposal, management, and supervision of natural resources, including in terms of control over the conditions of use of natural resources and environmental pollution**

According to the current legal framework, the category of natural resources that municipalities have certain powers to manage and control, as well as the list of activities related to the supervision of the use of natural resources, are limited for municipal bodies. Since control over the conditions of use of natural resources and their efficiency is the prerogative of the central government, the role of local governments is very weak in terms of monitoring the state of the environment and pollution. To enhance the role of municipalities in climate change-related policy development, greater decentralization in the management, control, and oversight of natural resources is needed.

- **Clear definition of the responsibilities and powers of local governments**

The current legal framework and relevant laws do not spell out the responsibilities and powers of the municipal sector concerning climate change. This makes climate policy planning and implementation a largely voluntary process. For municipalities to participate in the development and implementation of policies related to climate change, it is necessary to reflect the corresponding powers of local governments in all relevant laws and create a new legal framework for climate change regulation.

- **Improving the formal mechanisms of the relationship between the center and municipalities**

In cases where certain municipalities are already voluntarily involved in climate policy planning and implementation, it is important to strengthen their role in national policy planning, improve information exchange policies between the central government and local authorities, and establish regular working formats for frequent and meaningful communication, with central authority for local government. Currently, there is a significant lack of both channels and formats for such communication, as well as experience of participation beyond the formal opportunities that participation in the Climate Change Council creates.

- **Distribution of duties and responsibilities within local self-government**

In addition to the necessity of distributing responsibility and authority related to climate change between the center and local governments, it is also important to distribute the corresponding responsibilities within the municipal authority itself. The study shows that today, climate-related activities, such as work related to the "Covenant of Mayors," are handled by different departments in different municipalities, and climate-related responsibilities are not part of the formal distribution of staff responsibilities. A position with special and proper powers within the municipality will significantly enhance the municipality's ability to develop and implement effective climate policies. However, it should also be noted that awareness of and consideration of climate change as a cross-cutting issue is important in all circles.

II. Lack of knowledge and information

- **Accessibility of knowledge, information, and data related to climate change at the local level**

Research shows that information on the state of the environment and climate change's current and projected impacts is collected episodically and incompletely at the municipal level. These basic types of data are gathered within projects supported by various donors, meaning that the data often lack sufficient detail, both thematically and geographically. Additionally, in many areas, there are gaps and significant deficiencies in the data. The information collected within the projects is often not updated, which is particularly problematic when studying a dynamic process like climate change.

For municipalities to have the ability to monitor the impacts of climate change and plan mitigation and adaptation measures, it is crucial to develop mechanisms and competencies for key data collection and processing within local self-government structures. Having local expertise would also reduce the problems of dependency on donors and the lack of updated information.

- **Horizontal coordination between municipalities**

It would be of interest and beneficial to all municipalities to receive information regarding experiences with climate-related issues from different municipalities, both at the organizational and substantive levels. The formally proposed format for such information exchange, the Interagency Council on Climate Change, is not an effective mechanism. There is a need for more frequent and flexible horizontal formats to be created.

III. Weaknesses in Prioritizing the "Covenant of Mayors" in Georgia

- **Prioritizing adaptation**

As the analysis of SECAP plans and regionally created adaptation plans has shown, climate change mitigation is clearly prioritized at both the national and local levels. In the context of existing challenges and excessive natural hazards, it is necessary to prioritize adaptation to climate change's impacts and plan and implement appropriate institutional, infrastructural, and social interventions.

- **Mitigation policies beyond municipal property**

The "Covenant of Mayors" mostly pertains to properties owned by municipalities, meaning that plans related to reducing emissions from the private sector are less frequently created at the local level. It is essential to develop local policies for mitigation and adaptation that extend beyond municipal property and consider the overall condition and needs of the municipality.

- **Implementation and monitoring of action plans prepared within the framework of the "Covenant of Mayors."**

Organizations that have signed the Covenant of Mayors are gradually moving into the implementation phase. Therefore, it is important to establish effective and transparent practices for monitoring the implementation of activities at both the local government and national levels. To this end, it is possible to involve representatives of civil society and sectoral experts in municipal working groups for monitoring, proactively disclose information related to implementation, and prepare regular and public reports. Establishing such practices will also be important for those signatory municipalities currently at the stage of preparing action plans.

IV. General Challenges in Developing Local Policies Related to Climate Change

- **Establishing a climate budget marking system for municipal budgets**

Currently, municipalities use different criteria to determine what qualifies as a climate change-related activity and what does not. To better describe climate change-related activities and assess corresponding municipal expenditures and needs, it is important to have a climate budget marking practice. This practice would establish a uniform and consistent methodology for financial analysis.

- **Preventive policy regarding natural hazards**

In the context of excessive natural hazards, it is crucial to establish an active prevention policy to identify high-risk areas promptly and plan corresponding interventions. Local self-government structures, which have the closest contact with local communities and should best understand their needs, can play a key role in this regard.

Appendix 1:

On the Readiness of Local Self-Government Bodies Regarding the Impact of Climate Change in Georgia

Questionnaire Guide

For Representatives of the Central Government

Section I - Covenant of mayors, action plans, and reporting-monitoring

1. To what extent and how do the central government and its agencies contribute to the development and implementation of action plans (Sustainable Energy Action Plans (SEAP) and Sustainable Energy and Climate Action Plans (SECAP)) provided for by the Covenant of Mayors at the local level? According to the latest data, 27 municipalities have joined the Covenant of Mayors, but not all of them have prepared action plans.
    1. What efforts does your agency undertake to encourage the remaining municipalities to join the Covenant?
    2. What measures do representatives of the central government take to ensure that appropriate action plans are developed in the municipalities that are signatories to the Covenant of Mayors?
    3. According to recent information, only one municipality has developed a monitoring plan for the implementation of the action plan, and in 2022, a reporting methodology for municipalities was approved. What mechanisms does the central government use to ensure that the obligations related to monitoring and reporting the plans are fully met at the local level?
    4. What weaknesses characterize the municipalities participating in the Covenant of Mayors (please discuss legal, institutional, administrative, or financial problems).

Section II - National-level policy and legislation on climate change

2. How frequently does the Interagency Council on Climate Change meet? Where can interested parties access the issues discussed at the council and information about the agreements reached?

3. What mechanisms ensure the involvement of local self-governments in the development of Georgia's climate change legislation, policy, and action plan at the central level (e.g., participation in the council, during the drafting of strategic documents, in discussions of legislative proposals, etc.)?

    1. Which working format would you highlight where municipal representatives had high activity?
    2. Are there any municipalities you would highlight for having a relatively high level of participation in planning national-level climate change policy?
    3. Who are the authorized persons in climate policy issues most involved at the municipal level?

Section III - Climate Change Adaptation Plans

4. In the absence of a National Adaptation Plan (NAP), regional climate change adaptation plans and strategic documents are fragmented and inconsistent. Certain municipalities have developed adaptation plans with the support of international donors, which have been prepared either as independent documents or within regional reports.

    a. What is the vision of your institution regarding the process of developing adaptation plans? How can it be carried out more effectively, and is there a plan for each region to create, periodically update, and monitor the implementation of these plans?
    b. What is your institution's vision regarding the need for and use of such documents at the local level?
    c. What weaknesses characterize the implementation and monitoring of the existing adaptation plans?

Appendix 2:

On the Assessment of the Readiness of Local Self-Government Bodies Regarding the Impact and Consequences of Climate Change in Georgia

Questionnaire Guide

Territorial Coordinators of the Covenant of Mayors

Section I - Covenant of mayors, action plans, and reporting-monitoring

1. Some municipalities that are members of the Covenant of Mayors have already developed action plans. What are the trends in the implementation of these plans? Can you discuss the main weaknesses in their implementation?

    1. Legal: incomplete legislative norms and standards (on energy efficiency); by-laws; lack of national policy support
    2. Institutional: lack of coordination between national and local authorities
    3. administrative: dependence of local personnel on external expertise; collection of statistical data; cooperation with other municipalities
    4. financial: dependence on grant funding.

Section II - National-level policy and legislation on climate change

2. Who are the responsible individuals in municipal government involved in policy and legislative changes related to climate change at the national level?
3. Please discuss specific experiences. Through which specific mechanisms have you had the opportunity to be involved in developing Georgia's climate change legislation, policy, and action plans at the central level (e.g., the Council, during the development of strategy documents, in the discussion of draft laws, etc.)?
    1. Which working format would you highlight where municipal representatives had high activity?
    2. Are there any municipalities you would highlight for having a relatively high level of participation in planning national-level climate change policy?
    3. Who are the authorized persons in climate policy issues most involved at the municipal level?

Section III - Climate Change Adaptation Plans

4. In the absence of a National Adaptation Plan (NAP), regional climate change adaptation plans and strategic documents are fragmented and inconsistent. Certain municipalities have developed **adaptation plans** with the support of international donors, which have been prepared either as independent documents or within regional reports.

1. What is your vision regarding the process of developing adaptation plans? How can it be carried out more effectively, and is there a plan for each region to create, periodically update, and monitor the implementation of these plans?
2. What is your vision on the need and use of such documents at the local level?
3. What weaknesses characterize the implementation and monitoring of the existing adaptation plans?

Appendix 3:

On the Assessment of the Readiness of Local Self-Government Bodies Regarding the Impact and Consequences of Climate Change in Georgia

Questionnaire Guide

Supporters of the Covenant of Mayors

Section I - Covenant of mayors, action plans, and reporting-monitoring

1. What approach do your organizations take to contribute to the development and implementation of action plans provided for by the Covenant of Mayors (Sustainable Energy Action Plans (SEAP) and Sustainable Energy and Climate Action Plans (SECAP))? According to the latest data, 27 municipalities have joined the Covenant of Mayors, but not all of them have developed action plans.

    1. What work is your organization doing to ensure that other municipalities join the agreement?
    2. What measures do you take to ensure appropriate action plans are developed in the municipalities that are members of the Covenant of Mayors?
    3. According to the latest information, only one municipality has developed a monitoring system for implementing the action plan, and in 2022, a reporting methodology for municipalities was approved. What mechanisms do you use to ensure that the obligations related to monitoring and reporting the plans are fully met locally?

2. What are the trends in implementing these plans in some municipalities that are members of the Covenant of Mayors and have already developed action plans? Can you discuss the main weaknesses in their implementation? One of the recent publications on this issue (Green Book) highlights the following issues:

    1. Legal: incomplete legislative norms and standards (on energy efficiency); by-laws; lack of national policy support
    2. Institutional: lack of coordination between national and local authorities
    3. administrative: dependence of local personnel on external expertise; collection of statistical data; cooperation with other municipalities.
    4. financial: dependence on grant funding.

3. What are the expectations and approaches within your organizations regarding the better involvement of the municipalities participating in the Covenant of Mayors in the process of developing planned policies or legal documents on climate change at the central level? (e.g., while developing strategy documents, discussing draft laws, etc.).