

Terminal Evaluation of 'Strengthening the Climate Adaptation Capacities in Georgia' Project Final Report

International Evaluator: Mohammad Alatoom

National Evaluator: Giorgi Shubitidze

August – September 2024

Project title: Strengthening the Climate Adaptation Capacities in	Atlas ID: 00094354
Georgia	
Implementing agency: UNDP. Key partners: Ministry of Environmental	Project start date: 1 December 2018
Protection and Agriculture of Georgia	End date: Extended to end of September 2024
The overall goal of the project is the development of a well-established	<u>Country</u> : Georgia-11 major river basins in Georgia: Enguri, Rioni,
system for multi-hazard risk knowledge to ensure effective climate risk	Chorokhi-Adjaristskali, Supsa, Natanebi, Khobi, Kintrishi, Khrami-Ktsia,
management of all hydro-meteorological and geological hazards in	Alazani, and Iori, Mtkvari (same as Kura).
Georgia.	
Evaluation timeframe: August-October 2024	Funding source: Swiss Agency for Development and Cooperation
Total committed budget: SDC with a total funding of US\$ 5,20,270,	(SDC).
and \$42,000 contribution from UNDP	

3 Acknowledgements

- 4 The Evaluators would like to express gratitude to all of Georgia UNDP team, partners and stakeholders who
- 5 participated in the evaluation. In particular to the project management unit for facilitating the evaluation
- 6 activities, sharing information and data as well as the facilitating access to stakeholders for interviews.

7 **Disclaimer**

- 8 This report is the work of independent consultants, and does not necessarily represent the views, policy, or
- 9 intentions of the UNDP and its partners. The opinions and recommendations in the evaluation will be those of
- 10 the Evaluators and do not necessarily reflect the position of stakeholders.

Table of Contents 11 12 13 14 Acronyms......4 15 16 17 18 19 20 21 1.1 22 Problems to be addressed by the project12 1.2 23 1.3 24 1.4 25 1.5 Theory of Change15 26 1.6 27 2. 28 29 3.1 30 3.2 31 3.3 32 3.4 33 34 4.1 35 4.2 36 37 38 Outcome 1: The Georgian authorities have the financial, technical, and human capacities to establish a 39 40 Outcome 2: Vulnerable people, communities and regions in Georgia have increased resilience and face 41

42

4.3

43	Gei	nder mainstreaming	49
44	4.4	Efficiency	53
45	Fin	ance and co-finance	54
46	Pro	oject Management	55
47	Mo	onitoring and evaluation (M&E)	57
48	4.5	Sustainability	
49		titutional sustainability	
		ancial sustainability	
50		•	
51		cio-economic and environmental sustainability	
52		nclusion	
53	6. Red	commendations & Lessons	64
54	6.1	Recommendations	64
55	6.2	Lessons learned	65
56	7. Anı	nexes	67
57	7.1	Annex 1: TE ToR (excluding ToR annexes)	67
58	7.2	Annex 2: Evaluation matrix and data collection instruments	67
59	7.3	Annex 3: List of individuals or groups interviewed or consulted	73
60	7.4	Annex 4: List of supporting documents reviewed	
61	7.6	Annex 5: Pledge of ethical conduct in evaluation signed by evaluators	76
62			
63	List of fig	gures	
64	Figure 1	: The project theory of change	17
65	Figure 2	: Project organizational structure	28
66			
67	List of ta	bles	
68	Table 1:	List of project key stakeholders	17
69	Table 2:	Project Outcome indicators and targets	33
70	Table 3:	Project Outcome indicators and targets	35
71	Table 4:	Output 1.1, Output 1.2 and Output 1.3 indicators and targets	40
72		Project Outcome indicators and targets	
73		Output 2.1 and Output 2.2 indicators and targets	
74		the outcome of testing gender responsiveness in key deliverables	
75	Table 8	3: project expenditures overview – until Sep 2024	54

77

Acronyms

CC	Climate Change	
CBDRM	Community-Based Disaster Risk Management	
CCA	Climate Change Adaptation	
CPD	Country Programme Document	
СТА	Chief Technical Advisor	
DEM	Digital Elevation Model	
DRR	Disaster Risk Reduction	
EAP	Eastern Partnership	
EMS	Emergency Management Service	
EU	European Union	
EWS	Early Warning System	
GCF	Green Climate Fund	
GEF	Global Environment Facility	
GoG	Government of Georgia	
INDC	Intended Nationally Determined Contribution	
IRM	Integrated Risk Management	
KPIs	Key Performance Indicators	
LEPL	Legal Entity of Public Law	
LF	Logical Framework	
LSGs	Local Self Governments	
MHEWS	Multi-hazard early warning system	
MEPA	Ministry of Environmental Protection and Agriculture	
MTE	Mid-Term Evaluation	
M&E	Monitoring and Evaluation	
NEA	National Environmental Agency	
NIM	National Implementation Modality	
NIP	National Implementing Partner	
NPD	National Project Director	
OECD / DAC	Organization for Economic Co-operation and Development /	
	Development Assistance Committee	
PSC	Programme Steering Committee	
PMU	Project Management Unit	
SDC	Swiss Agency for Development and Cooperation	

SC	Steering Committee
SDGs	Sustainable Development Goals
SIDA	Swedish International Development Agency
SNC-Mt	Scientific Network for the Caucasus Mountain Region
SoPS	Standard Operating Procedures
TE	Terminal Evaluation
ToC	Theory of Change
ToR	Terms of Reference
ТОТ	Training of Trainers
TWGs	Technical Working Groups
UNDP	United Nations Development Programme
UNDP CO	United Nations Development Programme - Country Office
UNEG	United Nations Evaluation Group
UNEP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNPSD	United Nations Partnership for Sustainable Development
UNSDCF	United Nations Sustainable Development Framework
USD	United States Dollars
WB	The World Bank

Project Information			
Project/outcome title	Strengthening the Climate Adaptation Capacities in Georgia		
Atlas ID	00094354		
Project objective	The overall impact of the project is the reduction of Georgia's communities', livelihoods and infrastructure exposure to climate-induced natural hazards through a well-functioning nation-wide multi-hazard EWS and risk-informed local action. The achievement of the project overall objective is meant to equip both national and local governments in Georgia with relevant capacities and knowledge for increasing resilience of the communities and their livelihoods through standardization and harmonization of national hazard mapping and risk assessment framework and improvement of hazard and risk knowledge		
Country	Georgia		
Region			
Date project document signed	December 2018		
Project dates	Start	Planned end	
	December 2018	November 2023 – extended twice until the end of September 2024.	
Project budget	US\$ 5,065,630		
Project expenditure at the time of evaluation	US\$ 4,834,760		
Funding source	SDC		
Implementing party	Ministry of Environmental Protection and Agriculture of Georgia		

Executive summary

Project background

The SDC-funded project "Strengthening the Climate Adaptation Capacities in Georgia" (USD 5,020,270.22) (refer to herein and after as "the Project") being the core focus of this Evaluation report, contributed to an overall goal of reducing the exposure of Georgia's communities, livelihoods and infrastructure to climate-induced natural hazards through a well-functioning nation-wide multi-hazard EWS and risk-informed local action serving 1.7 million ordinary Georgians currently at risk from climate-induced hazards.

The **overall objective of the SDC project** is the development of a well-established system for multi-hazard risk knowledge to ensure effective climate risk management of all hydro-meteorological and geological hazards in Georgia. Geographical coverage of the project interventions is nationwide, with particular focus on 11 major river basins in Georgia: Enguri, Rioni, Chorokhi-Adjaristskali, Supsa, Natanebi, Khobi, Kintrishi, Khrami-Ktsia, Alazani, and Iori, Mtkvari (same as Kura) focusing on the following hazards: floods, landslides, mudflows, avalanches, strong wind, hailstorms and droughts.

The 'Strengthening Climate Adaptation Capacities in Georgia' project is implemented by the Georgian Ministry of Environmental Protection and Agriculture (MEPA) following UNDP's National Implementation Modality (NIM).

The project started on the 1 December 2018, it was originally due to be closed by 15 May 2024, but extended twice until the end of September 2024. The project is funded by SDC with a total funding of US\$ 5,20,270, and \$42,000 contribution from UNDP.

Evaluation scope and approach

This Terminal Evaluation (TE) aims to assess Relevance, Effectiveness, Efficiency, Sustainability, Gender Responsiveness, Results Framework, and identifies achievements of the project and lessons learned; and provides recommendations and any improvements that can be made for future projects with a similar outcome particularly for the expected phase II of this project. The evaluation placed a significant emphasis on identifying lessons learned and good practices that derive from the project's implementation. The evaluation covered the period 2018-2024 and addresses the results of project implementation. This evaluation was undertaken under the direction of the UNDP's commissioning unit (Energy and Environment Team Leader) and working closely with the Project Manager and Project Team.

The methodology of the TE encompassed a comprehensive desk review of project documentation, semi-structured interviews with key stakeholders and focus group discussions with project beneficiaries to collect firsthand evidence. This mixed-method approach allowed for data triangulation, increasing accuracy and informing the reliability of the evaluation results. Throughout the process, purposive sampling aimed to capture a diverse range of stakeholder perspectives, ensuring gender responsiveness and inclusivity in data collection and analysis. Analytical techniques included descriptive analysis, content analysis, thematic analysis, and basic quantitative analysis of monitoring data before and after the project, all aimed at identifying common trends, themes, and quantifiable project impacts.

Brief findings

Achieved results: The project made significant progress in producing technical deliverables, such as hazard maps, methodologies, and Emergency Management Plans, and in building capacities for hazard mapping and risk assessment. However, despite progress in achieving most of the outputs, the transition from outputs to outcomes has been limited in this project due to several systemic issues in Georgia. The natural hazard-related governance structure remains underdeveloped in Georgia and characterized by unclear institutional responsibilities and accountability for natural hazard management, which hampered the effective use of the project's deliverables. The project's long-term success depends on fostering an enabling environment where these deliverables can influence policy reforms and institutional practices.

Under outcome 1, the project significantly enhanced both technical and human capacities related to Georgia's Multi-Hazard Early Warning System (MHEWS), particularly in hazard mapping, risk assessment, and hazard modelling. Notable achievements include the development of six methodologies for multi-hazard mapping, training a total of 167 NEA staff members have been trained (of which 60 women), including 27 NEA staff members trained on drought, flood, and avalanche modelling, and hands-on learning experiences through study tours in Switzerland and 150 trained through in-job training. Despite these advancements, the GoG didn't formalize the developed methodologies by integrating them into Georgia's policy framework. While the methodologies were used for hazard mapping in 11 river basins, they have yet to be formally approved by the NEA. Moreover, the project has not delivered specific legal or institutional reforms to ensure the long-term adoption of hazard mapping and risk modelling tools, however, the project has delivered policy preparatory work for policy development including Analysis of Legal and Regulatory Framework for Disaster Risk Knowledge and a roadmap for developing the legal framework for hazard mapping and zoning policy, which identifies the laws and sub-laws that need amendment.

Under outcome 2, the project made important progress in developing individual hazard maps and risk assessments for all 11 river basins in Georgia, which were intended to inform zoning, Emergency Management Plans. However, the adoption of these tools has been limited due to insufficient technical capacity, unclear institutional responsibilities, and a lack of financial resources within municipalities. Many municipalities lack essential capacities (e,g lack of GIS specialists), which hinders the effective use of the hazard maps. Despite these challenges, the hazard maps have been successfully used to select vulnerable communities for risk reduction measures under GCF/SIDA projects, with community-based disaster risk management (CBDRM) plans developed for 45 communities. The project also developed 11 Emergency Management Plans for municipalities, five of which have been formally approved.

Coherence and Relevance: The SDC project was strategically integrated with the broader initiatives of GCF and SIDA, allowing for efficient use of resources and maximizing the impact of its deliverables, such as hazard maps. These efforts were essential in addressing Georgia's vulnerability to climate-induced hazards. However, despite its clear design, the project faced several challenges, including unrealistic timelines and a limited focus on applying its outputs in decision-making processes. The project indicators, though aligned with SMART criteria to some degree, lacked clarity, affecting their effectiveness in tracking progress.

The project was highly relevant to Georgia's climate risk management needs, filling critical gaps by developing a standardized national framework for hazard and risk mapping. It significantly advanced technical capacity,

- particularly in building knowledge within key agencies like NEA and EMS, and aligned well with the country's environmental policies.
- 161 Effectiveness: The project has been moderately effective in achieving its objectives, with major deliverables such
- as hazard maps and emergency plans successfully produced. However, and despite notable advances in addressing
- key barriers, challenges persist, particularly in relation to the underdeveloped governance structures for DRR in
- 164 Georgia. Although the project has invested heavily in building the capacities of government staff, technical gaps
- and institutional coordination issues remain.
- The project has faced several challenges that have hindered its progress and the achievement of key objectives.
- 167 A significant delay occurred in delivering hazard maps and assessments due to the initial failure of a consulting
- 168 firm, requiring a shift to individual consultants, which slowed down other interrelated components of the GCF and
- 169 SIDA projects. The limited availability of accurate data and satellite imagery, compounded by the high cost of such
- 170 resources, further impacted the quality and comprehensiveness of hazard mapping efforts. Additionally, the
- project struggled with finding specialized expertise in hazard mapping and risk assessment, particularly in Georgia,
- which necessitated the costly and time-consuming hiring of international consultants. Capacity issues within key
- agencies like the NEA, where staff were often overburdened with other duties, also delayed project activities.
- 174 Gender mainstreaming: The project has made progress in integrating gender considerations into its activities,
- ensuring an inclusive approach to climate-induced hazard management. Key efforts include the creation of a
- 176 Gender Action Plan for an Inclusive MHEWS that outlines recommendations for engaging vulnerable groups such
- as women, Internally Displaced Persons (IDPs), people with disabilities, and ethnic minorities in planning and
- preparedness efforts. Gender experts actively participated in the project's implementation, conducting gender
- sensitivity testing for key deliverables, ensuring gender perspectives were incorporated early in the process.
- 180 Gender-disaggregated data collection has allowed the project to track the participation of men and women,
- informing gender-responsive decision-making and enhancing inclusivity in emergency response strategies.
- 182 Efficiency: The integration of the SDC project with the GCF and SIDA initiatives has significantly enhanced
- efficiency and resource utilization, enabling the projects to achieve greater outcomes with limited resources. By
- sharing key human resources within the PMU, such as the procurement officer and gender specialist, the projects
- have reduced redundancies and administrative overhead, allowing for more effective allocation of resources. By
- June 2024, 94% of the SDC funding had been utilized, leaving a remaining balance of US\$ 281,519.88, which is
- 187 expected to be fully spent by the project's closing in September 2024. The SDC project serves as a co-financing
- 188 contribution to the larger GCF program, which has secured a total of US\$ 30,707,797 of its committed US\$ from
- government parallel funding since 2018 out of US\$38,239,024.
- 190 The project experienced delays in delivering key activities, particularly hazard maps, led to two extensions: a six-
- month extension to May 2024 and a subsequent 4.5-month extension to the end of September 2024. These
- 192 extensions were deemed necessary and reasonable. The delays were primarily caused by challenges in
- recruitment and procurement, especially for key roles such as the CTA and specialized consultants for hazard
- mapping. These delays caused subsequent delays to GCF/SIDA activities such as vulnerability assessments,
- selecting the most vulnerable communities, and implementing hazard reduction measures at the local level. These
- activities relied on the timely completion of hazard maps to inform risk prioritization and decision-making
- 197 processes

Sustainability: The governance structure for natural hazard management in Georgia remains underdeveloped, with unclear institutional responsibilities, limited interagency coordination, and a limited accountability framework. This has hampered the effective use of the project's deliverables, and combined with limited political will for policy reform, it has restricted the uptake of the project's outputs and slowed progress on long-term sustainability. At the local level, the limited capacity of municipalities to manage hazards reduction, compounded by financial constraints, lengthy bureaucratic process and unclear institutional accountability, has led to delays in approving and implementing Emergency Management Plans.

The development and maintenance of hazard maps and assessments in Georgia heavily depend on foreign funding, such as the contributions from SDC, SIDA, and GCF, with the Georgian government providing in-kind contributions. Financial capacity among municipalities is generally weak, limiting their ability to implement Emergency Management Plans, procure necessary equipment, and execute emergency measures. This lack of financial resources hampers disaster risk reduction efforts, leaving local authorities unable to fully realize the project's objectives.

Recommendations

With phase II already approved, the recommendations provided by this TE are expected to play an important role during the inception phase of phase II. Although the opportunity to incorporate these recommendations into the design of phase II has passed, they will still be valuable in shaping the early stages of implementation. The TE insights can help refine strategies, address potential gaps, and strengthen project execution as it progresses over the next few years. By informing the inception phase, these recommendations will support a smoother transition and ensure that lessons learned from phase I contribute to the success of phase II. See details in section 6.1.

- 1. Support to the GoG in reforming the institutional and legal settings for hazard mapping and assessments for improving preparedness, response, and recovery efforts, and for safeguarding lives and properties.
- 2. Engage with private sector and establish effective public-private partnerships.
- 3. Explore opportunities for partnering with a leading Georgian academic institution to assist NEA in implementing the methods developed by this project and keeping the hazard maps and assessments up to date.
- 4. Support local municipalities in mainstreaming hazard maps into their land use and zoning plans.
- 5. Showcase the work done on Emergency Management Plans to other municipalities to demonstrate success and encourage replication.
- 6. NEA to formally endorse the project's key deliverables, such as the developed methodologies for hazard mapping and risk assessment.
- 7. Implement strong advocacy efforts targeting both public agencies and the private sector.
- 8. Develop and implement a comprehensive M&E framework specifically designed to measure the outcomes of capacity-building efforts.

1. Introduction

1.1 Background and context

Georgia is suffering from several hydro-meteorological hazards that are intensifying due to climate change. The country needs to move towards a more proactive integrated risk-informed approach to adapt to climate change and mitigate its impact. The country lacks a multi-hazard early warning system and effective hazard emergency response which rely on effective forecasting and warning, that also includes knowledge of where and when the hazards will occur (high-risk areas identified by hazard mapping). Georgia has also a gap in climate risk information that would enable the Government of Georgia to implement several nationwide trans-formative policies for reducing exposure and vulnerability of the population and economic sectors to climate-induced hazards. Thus, the Government of Georgia decided to design a program to enhance the country capacity to adapt to the changing climate.

- The United Nations Development Programme (UNDP) designed a program aimed at reducing exposure of Georgia's communities, livelihoods and infrastructure to climate-induced natural hazards reduced through a well-functioning nation-wide multi-hazard early warning system and risk-informed local action. The program encompasses three interrelated projects funded by the Swiss Agency for Development and Cooperation (SDC), Green Climate Fund (GCF) and Swedish International Development Agency (SIDA).
- The GCF-funded project "Scaling-up Multi-Hazard Early Warning System and the Use of Climate Information in Georgia" (USD 27,054,000) targeted expansion of the hydro-meteorological network and modelling capacities and improving community resilience through implementation of early warning system (EWS) and risk reduction measures. The project provided critical climate risk information to enable the Government of Georgia to implement a number of nation-wide transformative policies and actions for reducing exposure and vulnerability of the population to climate-induced hazards. The project catalysed a paradigm shift in the national climate risk management, climate-proofed disaster risk reduction and early warning approaches.
- The SIDA-funded "Improved Resilience of Communities to Climate Risks" project (USD 3,621,132) aimed to reduce exposure of Georgia's communities, livelihoods, and infrastructure to climate-induced natural hazards through community -based interventions, public awareness raising and structural adaptation measure components.
- The SDC-funded project "Strengthening the Climate Adaptation Capacities in Georgia" (USD 5,020,270.22) (refer to herein and after as "the Project") being the core focus of this Evaluation report, contributed to an overall goal of reducing the exposure of Georgia's communities, livelihoods and infrastructure to climate-induced natural hazards through a well-functioning nation-wide multi-hazard EWS and risk-informed local action serving 1.7 million ordinary Georgians currently at risk from climate-induced hazards.
- The **overall objective of the SDC project** is the development of a well-established system for multi-hazard risk knowledge to ensure effective climate risk management of all hydro-meteorological and geological hazards in Georgia. Geographical coverage of the project interventions is nationwide, with particular focus on 11 major river basins in Georgia: Enguri, Rioni, Chorokhi-Adjaristskali, Supsa, Natanebi, Khobi, Kintrishi, Khrami-Ktsia, Alazani, and Iori, Mtkvari (same as Kura) focusing on the following hazards: floods, landslides, mudflows, avalanches, strong wind, hailstorms and droughts.

- The project was designed to be complementary to the overall initiative funded by the GCF /Government of Georgia/ SDC and SIDA.
- 273 The given goal was expected to be achieved through:

- 1) Equipping the Georgian authorities with the financial, technical and human capacities to establish a nationwide multi-hazard hydro-meteorological risk monitoring, modelling and forecasting (with focus on floods, landslides, mudflows, avalanches, hailstorms and droughts), and
- 2) Increasing vulnerable communities' and regions' resilience when facing risks from natural and climate change threats to their livelihoods.

The project was implemented under the UNDP's National Implementation Modality (NIM). The Ministry of Environment Protection and Agriculture (MEPA) bears the role of the national implementing partner (NIP) and project implementation was supported by the program management unit (PMU). The major partner for the project were the Legal Entity of Public Law (LEPL) - National Environmental Agency (NEA) under the MEPA, in addition to Emergency Management Service (EMS) under the Ministry of Internal Affairs, which assisted with the implementation of project activities related to multi-hazard risk assessment, mapping, and development of risk-informed municipal Emergency Management Plans.

1.2 Problems to be addressed by the project

- Georgia is a transcontinental country in the South Caucasus, has transitioned from a "failed state" to a middle-income country since 2003. The economy is diverse, relying on trade and services (17%), industry (11%), transport and communications (11%), real estate (10%), and agriculture (9%). Despite economic growth, poverty and income inequality remain high, particularly in rural areas, where 43% of the population lives, with 56% engaged in subsistence agriculture.
- Georgia faces significant climate-induced hazards due to its complex terrain and the influence of the Black and Caspian Seas. These hazards include floods, landslides, droughts, soil erosion, severe winds, hailstorms, and avalanches. Georgia's disaster risk profile is higher than the global average.
- Climate change is expected to increase the frequency and intensity of these hazards, impacting key sectors such as agriculture, infrastructure, and natural resources. Georgia's intended national determined contributions (INDC) under the United Nations Framework Convention on Climate Change (UNFCCC) highlights the need for international support to implement adaptation measures, with estimated economic losses of \$10-12 billion USD without adaptation between 2021-2030.
- Georgia's disaster risk governance is poor at both national and local levels due to limited capacity and lack of accurate climate risk information. The absence of standardized hazard, risk, and vulnerability mapping, outdated methodologies, and insufficient regulatory frameworks exacerbate these challenges. The EU requires Georgia to adopt regulations aligned with the European Union (EU) Flood Directive, but the country lacks the necessary technical and financial capacity. Additionally, there are no comprehensive planning platforms for multi-hazard risk management at regional, municipal, or community levels, leading to increased exposure to climate hazards and a lack of coping capacities for nearly half of the population at risk.

- Therefore, the Project was designed to contribute to overcoming the **main barriers identified** within the project inception phase and GCF-funded project, which include:
 - Lack of appropriate climate induced hazard maps that would enable informed decision- making.
- Limited technical capacity and experience to produce hazard and risk maps, limited knowledge, and implementation of modern hazard modelling tools.
- Lack of systematic data collection capacities and key data sets for the development of flood hazard models.
 - Lack of clarity in distribution of responsibilities and mandates and lack of cooperation among risk information related government agencies and scientific sector.
 - Unclear definition of the institutional responsibilities in legal documents of the country, hence lack of institutional arrangements supporting efficient and effective cooperation on hazard management.
 - Absence of multi-hazard planning platforms at municipal, sector and river basin levels

1.3 The project's strategy

- The **overall impact of the project** is the reduction of Georgia's communities', livelihoods and infrastructure exposure to climate-induced natural hazards through a well-functioning nation-wide multi-hazard EWS and risk-
- 322 informed local action.

309

314

315

316

317

318

319

334

335

336

339

340

- 323 The achievement of the project overall objective is meant to equip both national and local governments in Georgia
- 324 with relevant capacities and knowledge for increasing resilience of the communities and their livelihoods through
- 325 standardization and harmonization of national hazard mapping and risk assessment framework and improvement
- 326 of hazard and risk knowledge.
- The project strategy encompasses two outcomes, and five outputs as follows:
- Outcome 1 The Georgian authorities have the financial, technical, and human capacities to establish a nation-
- 329 wide multi-hazard hydro-meteorological risk monitoring, modelling, and forecasting.
- 330 **Output 1.1** Multi-hazard mapping and risk assessment methodology is developed and institutionalized on the national level.
- Activity 1.1.1: Standardization of the hazard mapping and risk assessment methodologies with clear mandates and approaches to be proposed to the government for validation and final adoption.
 - <u>Activity 1.1.2:</u> Acquisition and collection of the required data for hazard mapping existing capacities and need for data were identified prior to project implementation through assessment reports for hazard mapping capacities under the inception phase project.
- 337 **Output 1.2** Institutional and legal frameworks are in place to roll-out the standardized hazard mapping and risk assessment methodology.
 - <u>Activity 1.2.1</u> Review proposed amendments to legal framework and institutional set up to ensure roll out of hazard mapping and risk modelling methodology. The activity will address the re-strainers for risk-informed decision-making and will be in line with EU standards and relevant directives. The work will be

implemented in cooperation with two EU projects (EUWI+4 EaP and PPRD East 2) working on flood and water regulatory basis.

Output 1.3 Knowledge on multi-hazard mapping and risk assessment is available and enhanced.

- Activity 1.3.1 Strengthening capacities for multi-hazard mapping and risk assessment. The activity covers development of technical capacities related to risk identification and assessment, prevention, risk reduction, risk transfer, preparedness, climate risk management and climate change adaptation are rather weak across institutions and governance levels.
- Activity 1.3.2 Awareness raising on CCA and multi-hazard risk management public awareness and capacity building of communities and other users of the MHEWS is a critical component of the successful and effective MHEWS.
- Outcome 2 Vulnerable people, communities and regions in Georgia have increased resilience and face fewer risks from natural and climate change threats to their livelihoods.
- **Output 2.1** Nation-wide, multi hazard maps and risk profiles based on risk assessment are developed.
 - Activity 2.1.1 Development of multi-hazard maps and risk profiles for the following hazards: floods, landslides, mudflows, avalanches, <u>hailstorms</u> and droughts for 11 major river basins in Georgia (Enguri, Rioni, Chorokhi- Adjaristskali, Supsa, Natanebi, Khobi, Kintrishi, Khrami-Ktsia, Alazani, Iori, Mtkvari (same as Kura) river basins) using the most appropriate modern technologies and methods and aligned with international and regional standards.
 - Output 2.2. Municipal level multi-hazard response and preparedness capacities are enhanced
 - Activity 2.2.1 Development of capacities of EMS and local municipalities in risk-informed preparedness
 and response planning, through support in developing methodology and standard operating procedures
 (SoPs). The project will work with the most vulnerable municipalities, those municipalities where
 structural measures will be implemented, through GCF funded interventions to develop municipal
 climate-induced multi hazard Emergency Management Plans. The activity will include development of
 relevant capacities of the newly established Emergency Management Service, through support in
 developing required standardized methodology and developing the capacities through training of trainers
 (ToT).
 - Activity 2.2.2. Development of municipal level multi-hazard response and preparedness plans. The activity will be implemented in partnership with the EMS and target local municipalities with technical international expertise from the project. Followed by development of 10 climate risk-informed multi-hazard response and preparedness plans for the highly vulnerable municipalities (1. Enguri river basin in the Abasha Municipality (Samegrelo Zemo-Svaneti Region); 2-4. Rioni river basins in the Senaki Municipality (Samegrelo Zemo-Svaneti Region) and in the Municipalities of Samtredia and Khobi (Imereti Region); 5. Mtkvari river basin in the Gori city (Shida Kartli Region); 6-9. Alazani river basins in the Lagodekhi city, and in the Municipalities of Akhmeta, Sighnaghi and Telavi (Kakheti Region); 10. Chorokhi-Ajaristskali river basin in the Kobuleti municipality (Adjara Autonomous Republic)), where the structural measures will be implemented by GCF funded project.

1.4 Project timeframe, funding and location

- The 'Strengthening Climate Adaptation Capacities in Georgia' project is implemented by the Georgian Ministry of
- 381 Environmental Protection and Agriculture (MEPA) following UNDP's National Implementation Modality (NIM).
- The project's overall objective is the development of well-established system for multi-hazard risk knowledge to
- ensure effective climate risk management of all hydro-meteorological hazards in Georgia geographical coverage
- of the project interventions is a nation-wide, particularly 11 major river basins in Georgia: Enguri, Rioni, Chorokhi-
- Adjaristskali, Supsa, Natanebi, Khobi, Kintrishi, Khrami-Ktsia, Alazani, Iori, Mtkvari (same as Kura) focusing on the
- 386 following hazards: floods, landslides, mudflows, avalanches, hailstorms and droughts.
- The project started on the 1 December 2018, it was originally due to be closed by 14 November 2023, but extended
- twice till May 2024 and Sep 2024 respectively.

379

390

391

392

393

394

395

396

397

398

399

400

401

402

403

404

405

406

407

408

The project is funded by SDC with a total funding of US\$ 5,20,270, and \$42,000 contribution from UNDP.

1.5 Theory of Change

The absence of comprehensive and definitive climate risk information and legislative and policy framework will continue to result in an exacerbate weak land use, insufficient spatial planning and climate risk management, leading to increased exposure of communities to damages, losses and loss of lives. In addition, lack of institutional and financial capacities and lack of modern methodologies and technologies will prevent the design of climate risk informed mitigation measures. The large proportions of the population at risk from hydro meteorological hazards (1.7 Million, 47% of the population) currently lack the coping capacities and adaptation strategies at community and individual level to adapt to climate change and to manage and minimise their exposure and resilience to hydro meteorological hazards. Many of the victims from climate-induced natural hazards and eco-migrants in Georgia come from economically disadvantaged highland areas, where people are mostly self-employed running small scale subsistence agriculture, they are disadvantaged in terms of access to roads, critical infrastructure, telecommunications systems and basic social services, coping capacities of remote (mountainous) rural communities are limited. Meanwhile, most of economic losses are attributed to densely populated urban areas regardless of higher socio-economic opportunities.

- Therefore, the project's overall objective is the development of well-established system for multi-hazard risk knowledge to ensure effective climate risk management of all hydro-meteorological hazards in Georgia geographical coverage of the project interventions is a nation-wide, particularly 11 major river basins in Georgia: Enguri, Rioni, Chorokhi-Adjaristskali, Supsa, Natanebi, Khobi, Kintrishi, Khrami-Ktsia, Alazani, Iori, Mtkvari (same as Kura) focusing on the following hazards: floods, landslides, mudflows, avalanches, hailstorms and droughts.
- The project builds upon lessons learned and success of the past and on-going interventions, existing data/information, institutional and management frameworks and capacities and, communications and coordination mechanisms operational currently in Georgia in CCA and disaster risk reduction (DRR) areas.
- 412 Moreover, it scales-up the outcomes of the prototype *Rioni Flood project, SDC Prevention and Preparedness*
- 413 *Project* (2013-2016) as well as other baseline projects. Therefore, expanded the scope of already attested and
- verified interventions with close participation of national-wide and local stakeholders which is more cost-effective
- 415 than the implementation of a completely new initiative.

- To deal with the hydro-meteorological hazards that are intensifying due to climate change, Georgia needs to move
- 417 towards a more proactive integrated risk-informed approach. A MHEWS and effective hazard emergency response
- rely on effective forecasting and warning, that also includes knowledge of where and when the hazards will occur
- 419 (high risk areas identified by hazard mapping) as well as there is a need to have critical climate risk information
- 420 that would enable the Government of Georgia to implement a number of nation-wide transformative policies for
- reducing exposure and vulnerability of the population and economic sectors to climate induced hazards.
- The project design is complimentary to the efforts under GCF funded project aimed to reduce the exposure of
- 423 Georgia's communities, livelihoods and infrastructure to climate-induced natural hazards through a well-
- functioning nation-wide multi-hazard early warning system and risk-informed local action which served 1.7
- 425 Million ordinary Georgians currently at risk from climate-induced hazards.
- The impact hypothesis of the project is as follows:

428

429

430

431

432

433

434

435

436

- Standardized and harmonized national multi-hazard mapping and risk assessment methodology enables development of unified risk information on national level.
- Adequate institutional and legal frameworks for multi-hazard mapping and risk assessment is in place and implemented to provide clear structure for development of risk information.
- Enhanced long-term technical and human capacities of relevant agencies and institutions responsible for multi-hazard mapping and risk assessment provide adequate and sufficient risk information.
- Multi-hazard maps and risk profiles for 11 river basins in Georgia, which provides valuable information
 on existing multi-hazard risk both on national and local levels for further risk-informed development
 planning.
- Local (municipal) preparedness to multi-hazard risks is improved through enhanced capacities for risk-informed preparedness planning and existence of the risk-informed preparedness plans.
- The project interventions are expected to have the following benefits to key sectors:
- 439 **Critical Infrastructure**: Multi-hazard risk information enables sector resilience planning for all critical infrastructure impacted by climate hazards. With climate risk information embedded into the planning, design,
- construction and management framework for critical infrastructure, there will be reduced impacts of hazards.
- 442 Systematic and comprehensive assessment of the risk to infrastructure and development of sector-specific
- resilience and response planning, will reduce the disruption of essential services resulting from hazards thus
- increasing efficiency of most sectors of critical infrastructure.
- 445 Energy: With more data being available by the project (through expansion of the hydrometric network by GCF
- 446 project) and new climate risk products (multi-hazard maps and risk profiles), hydropower companies would have
- 447 enhanced information base to inform design management and operations of their installations. This could provide
- improvements in climate resilient design, and efficiencies in management and operations.
- Insurance: A weather index-based flood insurance scheme has been developed for the Rioni project. The risk and
- 450 insurance model are developed but for national coverage and inclusion of other hazard it needs the multi-hazard
- and risk modelling that the project provides. The insurance sector with the Government of Georgia can take this

forward. Based on the Rioni project, there is currently a lack of enabling environment for this scheme to be implemented within the lifetime of the project.

Natural resources and ecosystems: Climate risk information and multi-hazard risk management plans at the river basin level for all 11 major river basins allows for better protection of land, forest and water resources of the country.

Figure 1: The project theory of change

454

455

456

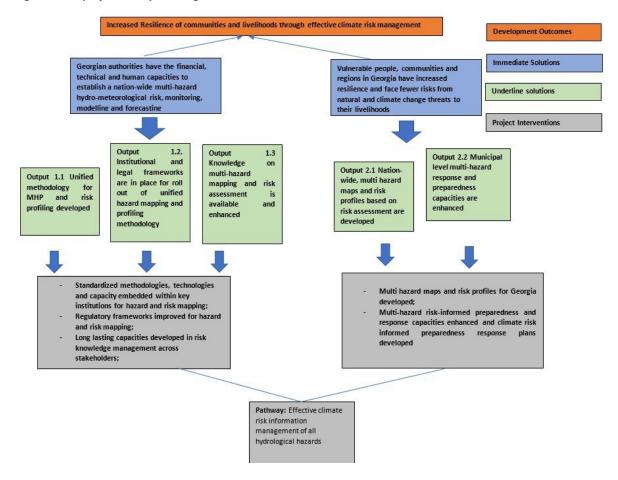
457

458 459

460

461

462



1.6 Stakeholders' participation

The project involves multiple stakeholders that can be summarised as follows:

Table 1: List of project key stakeholders

Stakeholders	Role in the project
Implementation partners of this Project (MEPA)	MEPA is a responsible body for developing and implementing national CCA policies and meeting the commitments taken under UNFCCC and Paris Agreement in Georgia. MEPA representative serves as a National Project Director (NPD) for the project.

Legal Entity of Public Law (LEPL) -NEA under MEPA	NEA is a major project beneficiary and stakeholder responsible for hydrometeorological and geological monitoring and hazard mapping of Georgia.		
EMS under the Ministry of Internal Affairs of Georgia	EMS is the highest body for management of all types of emergencies at the national level established in December 2017 as a merger of State Security and Crisis Management Council under the Ministry of Internal Affairs.		
Other Line Ministries and state institutions	Line ministries and agencies, such as, Ministry of Economy and Sustainable Development, Ministry of labor, Health and Social Affairs, National Agency for Cultural Heritage Preservation under the Ministry of Education and Culture and Sports, Ministry of Internal Affairs and Public Registry under Ministry of Justice, are meant to be engaged in development of regulatory framework and methodology for multi-hazard risk profiling, along with collection of required social-economic data needed for risk profiling		
Local Self Governments (LSGs) of 10 municipalities	Local authorities are the key actors and primary beneficiaries of the project activities related to risk- informed preparedness and response planning on the local level. LSGs are responsible for implementing municipal multi- hazard preparedness and response plans developed together with EMS.		
International Donors	Several international donors are actively supporting CCA and DRR initiatives in Georgia. The primary partner for this Project is the GCF-funded project, "Scaling-up Multi-Hazard Early Warning System and the Use of Climate Information in Georgia." Additionally, the project has collaborated with the Scientific Network for the Caucasus Mountain Region (SNC-Mt) on the inception phase of the SDC-funded project, "Strengthening the Climate Adaptation Capacities in the South Caucasus." Another relevant initiative is the SDC/ADA-funded "Women's Economic Empowerment" project, implemented by UN Women. Other significant donorfunded projects include the EU's "Prevention, Preparedness and Response to Natural and Man-made Disasters in the Eastern Partnership (EAP) countries (PPRD East 2)" and the EUWI+4 EAP project, which focuses on water management and is part of the Eastern Partnership Programme (2017-2020).		

2. Evaluation scope and objectives

463

464

465

466

467

468

469

473

This TE aims to assess the Relevance, Effectiveness, Efficiency, Sustainability, Gender Responsiveness, Results Framework, and assess achievements of the project and lessons learned; and provide recommendations and any improvements that can be made for future projects with a similar outcome. The evaluation places a significant emphasis on identifying lessons learned and good practices that derive from the project's implementation.

- The evaluation covers the period 2018-2024 and addresses the results of project implementation.
- This evaluation was undertaken under the direction of the UNDP's commissioning unit (Energy and Environment Team Leader and UNDP M&E specialist) and working closely with the Project Manager and Chief Technical Advisor.
- The evaluation focuses on the key criteria, which include, among others:
 - Relevance of the component interventions under the project;

- Effectiveness of the components within the project;
 - Efficiency of the component design and implementation to-date;
- Potential sustainability of beyond the project;

482

483

484

485

486

487

488

489

490

491

497

498

499

500

501

502

503

504

- Extent to which the project addressed gender equality issues in its design, implementation and outcomes.
- The evaluation identifies the pertinent issues such as management arrangements, procurement and financial procedures, timeliness of interventions, selection of partners, incorporation of innovative solutions and prospects for sustainability.
- The list of indicative questions to guide the evaluation scope is available in Annex 2 the evaluation matrix.

3. Evaluation approach and methods

The TE Report provides evidence-based information that is credible, reliable, and useful. The TE evaluator reviewed all relevant sources of information, including documents prepared during the preparation/design phase, the project document, project reports, project revisions, relevant strategic and legal documents, and any other materials that the TE evaluator considers useful for this evidence-based review.

- The TE complied with UNDP Evaluation Guidelines and United Nations Evaluation Group (UNEG) Norms and Stand for Evaluations. The evaluation was undertaken in line with UNDP principles concerning independence, credibility, utility, impartiality, transparency, disclosure, ethical, participation, competencies and capacities. The consultants signed the Evaluation Consultant Code of Conduct, thereby agreed to abide by the UNEG Code of Conduct in the UN System (2008)¹. The evaluation will be carried out by an independent international consultant.
- The evaluation process is independent of UNDP, implementing partners and programme partners. The opinions and recommendations in the evaluation will be those of the Evaluator and do not necessarily reflect the position of UNDP, or any of the programme stakeholders. Once accepted, the evaluation becomes a recognized and publicly accessible component of the programme's documentation. The evaluation was carried out between August 2024 and October 2024, and stakeholder engagement took place early September 2024.
 - Evaluation is an evidence-based assessment of a programme's concept and design, its implementation and its outputs, outcomes and impacts as documented in the project document. Evidence will be gathered by reviewing documents, interviewing key, selected stakeholders and from other ad hoc observations.

3.1 Data collection methods

Mixed methods² were used for the evaluation to generate mix of qualitative and quantitative data to best describe the project results based on the on the results framework as outlined in the project document. The use of mixed methods has the advantage of supporting data triangulation across multiple sources, which creates the potential for increased data accuracy and credibility to inform the reliability of the evaluation results.

¹ UNEG Code of Conduct for Evaluation in the UN system, 2020. Available here.

² Mixed methods involve desk review, semi-structured interviews, and surveys for data collection, and also descriptive analysis, content analysis, thematic analysis and simple quantitative data analysis in excel for survey data and quantitative indicators for data analysis. See below sections for more details.

The evaluation used methods of document review and interviews for data collection to obtain answers to all of the evaluation questions. The evaluation had two levels of data collection and validation of information:

- A desk review of project documentation where both qualitative and quantitative data were collected –
 See annex 4 for list of documents reviewed, and
- Semi-structured interviews with key stakeholders for qualitative data collection (Annex 3 list of persons interviewed).

An evaluation matrix was developed as a base for gathering of qualitative inputs for analysis. The evaluation matrix defined the objective for gathering non-biased, valid, reliable, precise, and useful data with integrity to answer the evaluation questions.

Engaging stakeholders was critical for the success of the evaluation. The project involved multi-stakeholders and teams in different capacities and the TE engaged with various stakeholders to cover different perspectives taking into account the principle of gender responsiveness.

Gender responsiveness has been integrated throughout the evaluation process including gender balance during the engagement with stakeholders by ensuring both genders are engaged, particularly when it comes to beneficiaries, assessing the gender integration in the project design and delivery, and ensuring that data collection and analysis are gender sensitive. The evaluation used gender-disaggregated data of personnel engaged by the project to identify barriers and differentiate roles that may be more suited to each gender. The evaluation also checked whether all "people count" indicators are gender segregated and if the project had reported women ratio in related indicators. The TE evaluation assessed the extent to which the gender action plan has been implemented and its activities and outcomes are monitored as well as the extent to which key stakeholders have been consulted and their inputs were considered and used to inform design and implementation. It assessed the extent to which the project has addressed vulnerability to ensure equal participation of men, women, children and youth, people with disability and other marginalized groups as well as benefits from the project investments.

Throughout the evaluation process, the main stakeholders were engaged and interviewed using semi-structured interview³. Interviews relied on targeted and purposive sampling strategy to include a diversity and balance of perspectives from each stakeholder category.

3.2 Data analysis methods

Data analysis was based on observed facts, evidence, and available data. Findings are specific, concise, and supported by quantitative and/or qualitative information that is reliable, valid and generalizable.

Information was analysed and consulted with project team or commissioning unit., and then an evaluation report draft was developed. All analysis has been based on observed facts, evidence and data. Findings have been designed to be specific, concise and supported by quantitative and/or qualitative information that is reliable, valid and generalizable. The broad range of data provided strong opportunities for triangulation. This process is

³ A semi-structured interview is a method of research used most often in the social sciences. While a structured interview has a rigorous set of questions which does not allow one to divert, a semi-structured interview is open, allowing new ideas to be brought up during the interview as a result of what the interviewee says. The interviewer in a semi-structured interview generally has a framework of themes to be explored.

essential to ensure a comprehensive and coherent understanding of the data sets, which was generated by the evaluation.

The data analysis method involved:

- **Descriptive analysis**: A descriptive analysis of the PROJECT was used to understand and describe its main components, including related activities; partnerships; modalities of delivery; etc. Descriptive analysis preceded more interpretative approaches during the evaluation.
- Content analysis: A content analysis of relevant documents and the literature was conducted to identify common trends and themes, and patterns for each of the key evaluation issues (as the main units of analysis).
 Content analysis was used to flag diverging views and opposite trends and determine whether there was need for additional data generation.
- Thematic analysis: Responses collected from semi-structured interviews and field visit observations were analysed through thematic analysis, this is a method of analysing qualitative data. The evaluators has closely examined the data to identify common themes topics, ideas and patterns of meaning that come up repeatedly from interviews and other sources.
- Quantitative analysis: A simplified analysis was conducted on all quantitative measures (for example number
 of beneficiaries) by reviewing and validating project datasets on quantitative indicators. The generated
 statistics were used to develop emergent findings and inform the triangulation process.
- **Triangulation**: In this evaluation, triangulation involved validation of data through cross verification from at least two sources, and evaluation findings and conclusions were synthesized based on triangulated evidence from the desktop review and interviews. This process was essential to ensure a comprehensive and coherent understanding of the data sets, which have been generated by the evaluation.

3.3 Ethical Considerations

The TE consultants were held to the highest ethical standards and was required to sign a code of conduct upon acceptance of the assignment. This evaluation was conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluation'. The evaluators ensured to safeguard the rights and confidentiality of information providers, interviewees, and stakeholders through measures to ensure compliance with legal and other relevant codes governing collection of data and reporting on data. The evaluators also ensured security of collected information before and after the evaluation and protocols to ensure anonymity and confidentiality of sources of information where that is expected. The information knowledge and data gathered in the evaluation process has been solely used for the evaluation and not be used for other purposes without the express authorization of UNDP and partners.

3.4 Limitations

One of the main constraints experienced during this evaluation was related to data collection and the availability of stakeholders for interviews. Stakeholder availability was affected by coinciding missions, travel schedules, and holidays for some key individuals.

In response to these challenges, the project management team played a crucial role in coordinating with stakeholders to ensure their participation in the evaluation process. They facilitated scheduling interviews and, where necessary, arranged alternatives such as conducting online interviews for those who were not available in

⁴ UNEG Ethical Guidelines for Evaluation, 2020, available <u>here</u>.

576 person. This proactive approach helped to mitigate the impact of scheduling conflicts and ensured that the 577 evaluation could proceed with input from all relevant stakeholders.

4. Findings

4.1 Coherence and Relevance

Findings

The SDC project was strategically designed to align with and contribute to a broader initiative including (SDC, GCF, SIDA) which helps to maximize efficiency and impact. By contributing critical outputs like hazard maps, the project supports a larger effort to reduce Georgia's vulnerability to climate-induced hazards. However, despite its clear design and focus on building technical capacity for hazard mapping, the project encountered challenges such as unrealistic timelines and a limited focus on applying the outputs to practical decision-making. The indicators defined in the Project's PRF generally meet the SMART standards to a certain degree. However, some indicators lacked the necessary clarity and relevance, which affected their effectiveness in tracking progress.

The project is highly relevant to the needs of participating stakeholders by addressing critical gaps in climate risk management in relation to access to accurate climate risk information and supporting the development of a standardized national framework for hazard, risk, and vulnerability mapping. The project is also highly relevant to the needs of the individuals working at key agencies such NEA and EMS in terms of building knowledge and capacities to better understand and implement hazard mapping and assessment. The project is also well-aligned with the Georgian government environmental policies, plans and priorities and addresses a critical issue and helps protecting and saving human lives, through the provision of the MHEWS and hazard mapping. The project is also aligned with the strategic plans for the key implementing agencies including UNPSD, SDC, UNDP etc.

The TE team analyzed the design of the project as outlined in the project document to identify whether the project strategy proved to be effective in reaching the desired results.

The SDC-funded project was strategically designed to build upon and contribute to a broader program encompassing three interrelated initiatives funded by SDC, GCF, and SIDA. This integration not only created operational efficiencies but also ensured that the primary output of the SDC project—hazard maps and assessments—will be leveraged within the larger program. As a result, the SDC project's contributions are set to add significant value to a wider effort aimed at reducing the exposure of Georgia's communities, livelihoods, and infrastructure to climate-induced natural hazards. Through this collaborative approach, the broader program seeks to establish a well-functioning, nationwide multi-hazard early warning system and promote risk-informed local action. By incorporating the outputs from the SDC project, the program will enhance Georgia's capacity to anticipate, prepare for, and respond to natural hazards, thereby reducing vulnerability and strengthening resilience at both the national and local levels.

The project design has successfully identified the key challenges related to hazard and risk management in Georgia including the lack of appropriate climate-induced hazard maps for risk-informed decision-making, limited technical capacity and experience within agencies to produce hazard and risk maps using modern tools, and the absence of essential data sets, such as Digital Elevation Models, due to high costs and inadequate data collection systems. Additionally, there is a lack of clear mandates for hazard management, insufficient cooperation between government agencies and the scientific sector, poorly defined institutional responsibilities within Georgian law, ineffective institutional arrangements for hazard management, and the absence of multi-hazard planning platforms at the municipal, sector, and river basin levels. In response to these identified challenges, the project

was designed to implement targeted activities and outputs that directly address these critical gaps, aiming to enhance Georgia's overall hazard and risk management capacity.

The project design has primarily concentrated on establishing the technical foundation for producing hazard maps and assessments, dedicating much of its efforts to building capacity in this area. However, it placed comparatively little emphasis on activities that promote the actual uptake and use of climate information for enhanced adaptation to climate change and for addressing these hazards in an integrated manner within Georgia. This gap has limited the project's ability to transition from generating outputs, such as the development of hazard maps, into achieving broader outcomes—namely, the widespread adoption and practical use of these maps by relevant stakeholders. As a result, the project's impact in terms of informing decision-making, fostering risk preparedness, and supporting long-term adaptation strategies has been constrained.

The expectation to start producing the first batch of hazard mapping and assessment in the first year of implementation was ambitious. Given the scattered nature of existing data in Georgia and the limited technical capacities, starting hazard mapping from scratch was a highly complex task that required significantly more time than initially anticipated—certainly more than a year to be fully developed in a format that is usable. This design flaw had negative consequences, particularly for the GCF and SIDA projects, which were heavily interdependent on the outputs of the SDC project. The delays in hazard mapping and assessment impacted subsequent activities such as vulnerability assessments, selecting the most vulnerable communities, and implementing hazard reduction measures at the local level. These activities relied on the timely completion of hazard maps to inform risk prioritization and decision-making processes.

Despite some of the challenges, the overall project design is considered clear in outlining what it sets to do, which are focused on equipping both national and local governments in Georgia with the necessary capacities and knowledge to enhance the resilience of communities and their livelihoods. The design of the project clearly defines specific activities that lead to measurable outputs, which are expected to transition into meaningful outcomes.

The project's design process was comprehensive, consultative, and participative, as clearly documented in the planning materials, such as the Project Document. It involved a wide range of stakeholders, ensuring diverse perspectives were integrated into the design phase. Through extensive consultations and the inclusion of technical inputs, the process aimed to capture the needs and priorities of all relevant parties, from national and local governments to technical agencies and community representatives.

Project Results Framework: This section provides a critical assessment of the Project Results Framework (PRF) in terms of clarity, feasibility and logical sequence of the project outcomes/outputs and their links to the project objective. It also examines the specific indicators and their target values in terms of the SMART criteria.

Regarding the SMART criteria⁵, the indicators defined in the Project's PRF generally meet these standards to a certain degree. However, some indicators lacked the necessary clarity and relevance, which affected their effectiveness in tracking progress. Here are some of the flaws identified by the TE:

- The objective-level indicator 1, which measures the 'number of people benefiting from reduced exposure to climate-induced hazards,' is based on the assumption that the use of hazard maps will directly inform the implementation of hazard reduction measures and decision-making, thereby benefiting communities by

.

⁵ Specific, Measurable, Achievable, Relevant, Time-bound

- reducing their exposure. While this assumption is reasonable, it does not clearly establish a direct line of attribution between the project outputs (such as the development of hazard maps) and the actual change in the indicator. In other words, while hazard maps are an essential tool, the indicator does not account for other critical factors that influence whether communities genuinely benefit, such as the effectiveness of local planning, availability of resources for implementing risk reduction measures, or community engagement in using the information. Without a stronger attribution link, it remains challenging to determine how much of the change in the indicator can be directly attributed to the project's outputs versus other external factors.
- Objective-level Indicator 2, which measures the "% of the Government's spending on Climate Change Adaptation (CCA) measures in Georgia," faces significant challenges. Firstly, the indicator lacks a baseline, making it difficult to assess progress or changes over time. More critically, the Georgian finance and accounting system does not currently track CCA spending as a distinct category, rendering the indicator impractical and unmeasurable in its current form. Furthermore, as with the first indicator, there is no clear line of attribution between the project's outputs—such as the production of hazard maps—and an increase in CCA spending. While hazard maps are an important tool, they represent only one of many factors that could influence government expenditure on adaptation measures. Without a direct causal link, it is difficult to attribute any changes in CCA spending solely to the project's activities.
- Outcome Indicator 1.2: # of gender considerations reflected in newly developed policy documents and technical guidance. This indicator is not specific enough to define first what gender considerations look like and second what judging criteria for considering certain policy actually reflect those considerations? The desire for having gender related indicator is appreciated but needs to be mores specific and SMARTer.
- There are number of indicators that refer to 'gender-sensitive' outputs, such as Outcome Indicator 1.2, which measures the "# of gender considerations reflected in newly developed policy documents and technical guidance,". These indicators lack specificity and clarity in its current form. First, they don't provide a clear definition of what constitutes "gender considerations," leaving it open to interpretation. Second, there are no established judging criteria to determine whether a particular policy or technical document genuinely reflects those considerations. As a result, it becomes challenging to measure progress accurately or assess the quality of gender integration. Same flaw applies to indicators 1.2.1, 1.2.2, 1.3.1, 2.2.1, and 2.2.2. While the inclusion of a gender-related indicator is valuable and aligns with the project's goals, it needs to be made more specific and follow the SMART criteria.
- Indicator 1.3.3, which tracks the "# of public awareness interventions implemented on CCA and multi-hazard risk management issues," is not relevant to the project's scope, as the project does not include any specific activities related to public awareness campaigns. As a result, this indicator does not align with the project's objectives or outputs and was not reported on during implementation.
- Outcome indicators 2.1 ("# of integrated risk management (IRM) actions implemented by local authorities for major river basins in Georgia") and 2.2 ("# of municipalities with specific measures related to climate change adaptation (CCA)/IRM incorporated in their development plans and budgets benefiting # of persons") are more aligned with the activities of the GCF and SIDA projects, rather than those funded by the SDC. These indicators focus on broader, integrated risk management and climate adaptation measures that fall under the purview of GCF/SIDA efforts, which emphasize large-scale regional and municipal planning and budgeting for climate resilience.

Gender responsiveness of project design: The project design recognizes that the impacts of climate change are not gender-neutral and has, therefore, mainstreamed gender considerations across all project activities, indicators, and targets. Special attention has been given to ensuring that the needs and priorities of women and girls are fully integrated into both national and local policies. This includes incorporating gender perspectives into the national policy framework as well as local initiatives related to multi-hazard risk profiling, vulnerability assessments, and risk-informed preparedness and response planning. By doing so, the project aims to ensure that women and girls, who are often disproportionately affected by climate-related risks, are actively involved in decision-making processes and that their specific vulnerabilities are addressed. This gender-sensitive approach

- strengthens the project's overall effectiveness in building resilience by ensuring that risk reduction strategies are inclusive and equitable.
- The project design did not include a standalone Gender Action Plan (GAP) specific to the SDC component. Instead,
- it relied on the GAP developed at the GCF program level, which covers areas relevant to the SDC's scope, such as
- 690 hazard mapping and emergency planning. The GCF's GAP outlines detailed gender mainstreaming actions at the
- 691 level of individual activities, ensuring that gender considerations are integrated into the project's core
- 692 components. The GAP includes specific indicators and targets to track gender equity progress, along with defined
- 693 timelines and clear responsibilities for implementation. The GAP was not backed by an adequate budget, but GCF
- 694 program level funding was available to recruit gender expertise of local and international consultants to
- 695 implement the GAP activities.
- The project design envisaged a proactive and equal participation of women and men in local policy making. For
- 697 example, when it comes to hazard-informed local planning, the project aimed to secure adequate representation
- of women within the planning teams and consultation groups, including women representing vulnerable groups
- 699 (e.g., elderly, bread- makers, ethnic minorities, disabled persons, IDPs) with a target of achieving minimum 30%
- 700 representation of women in these planning platforms.
- The project design has also stipulated that Knowledge products produced within the project will go through the
- gender analysis to ensure gender neutral language is applied. Sex- segregated data collection will be in place for
- 703 the purpose of monitoring and evaluation.
- 704 UNDP Social and Environmental Screening Procedure (SESP): The project design integrated both the Social and
- 705 Environmental Screening Procedure (SESP) and the Social and Environmental Risk Screening Checklist to assess
- potential risks. Despite this effort, the overall rating of the SESP was deemed to be low. However, it is important
- to note that the SESP did not define or thoroughly assess specific social and environmental risks associated with
- 708 the project. While the low-risk rating may sound reasonable given the technical nature of the SDC project
- activities, however, the absence of a detailed evaluation of specific social and environmental factors could be a
- 710 limitation.
- 711 Risks and assumptions: The project design includes a risk log in Annex 3 of the project document, identifying five
- 712 key risks—three rated as medium and two as low. Each of these risks is supported by a detailed description,
- including its category, overall risk level, probability of occurrence, potential impact, and the planned measures for
- 714 mitigation or reduction. This thorough assessment ensures that the project has a clear understanding of the
- 715 potential challenges it may face. During project implementation, risks are carefully examined and analyzed to
- adapt strategies as needed. The project team has been using highly comprehensive, well-developed, and well-
- 717 maintained risk monitoring tools, including risk register sheets, to track and manage these risks effectively. This
- 318 structured approach to risk management enhances the project's resilience by enabling timely interventions and
- adjustments to minimize the impact of potential disruptions.
- 720 Lessons learned from other projects: The project design is built upon the lessons learned and successes of past
- and ongoing interventions, leveraging existing data, institutional frameworks, management capacities, and
- communication and coordination mechanisms operational in Georgia's CCA and DRR sectors. A key foundation for
- the project's design was the previous successful intervention, the "Developing Climate Resilient Flood and Flash"

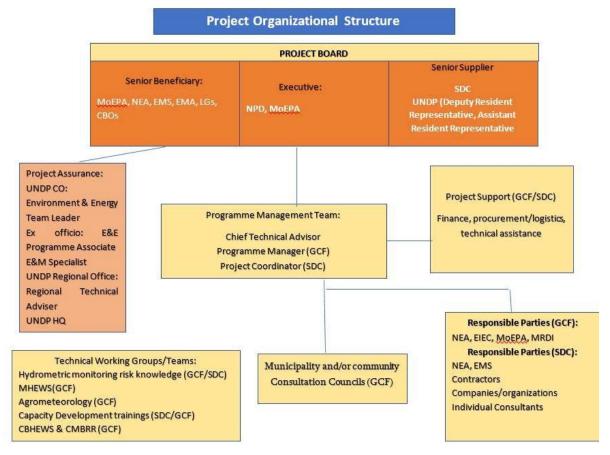
- 724 Flood Management Practices to Protect Vulnerable Communities of Georgia" project, commonly known as the
- Rioni Project. This UNDP-implemented, Adaptation Fund-financed initiative was executed from 2012 to 2017 and
- focused on flood risk management in the Rioni river basin.
- One of the critical lessons from the Rioni Project was that the sustainability of both structural and non-structural
- risk reduction measures depends heavily on the understanding, acceptance, and ownership of these measures by
- local communities. Building on this insight, the current project was designed to support and enhance the efforts
- of the GCF-funded project by helping the Georgian government transition from ad-hoc, project-based awareness
- and education initiatives to a more planned, consistent, and sustainable national information and communication
- 732 system for improved climate and disaster risk management. This approach is expected to foster long-term
- resilience by ensuring that communities are more engaged and proactive in managing climate-induced risks.
- 734 The project design also effectively identified all relevant baseline and related projects being implemented in
- Georgia, ensuring a comprehensive understanding of the ongoing efforts in climate adaptation and disaster risk
- management. By mapping out these initiatives, the design was able to outline the sought complementarities with
- these projects, ensuring that the new interventions would not duplicate efforts but instead build upon and
- 738 enhance existing work.
- 739 Planned stakeholders participation: The project design successfully identified all relevant national and local
- 740 governmental agencies involved in the project activities, and a comprehensive stakeholder mapping was included.
- 741 This mapping outlines each stakeholder's mandate, their role in the project, and the specific actions the project
- 742 will take to strengthen their capacities. The stakeholder engagement section acknowledges relevant stakeholders
- for various activities, but lacks clarity on how each stakeholder will be engaged throughout the project. It does
- 744 not clearly define the roles of different stakeholders, such as who will be actively consulted, who will be kept
- informed, and how these interactions will be managed and sustained during the project's implementation. Later
- 746 this gap has been addressed by the GCF program by developing overall program developed stakeholder
- 747 communication plan (draft), covering SDC project related stakeholders as well.
- 748 Furthermore, the project design identified the need to develop a Technical Advisory Working Groups (TAWG) to
- be established under GCF funded interventions. This TAWG was meant to support the CTA and PC for the GCF.
- 750 They are supposed to provide inputs to and endorsement of the design and quality of the GCF project outputs.
- 751 Management arrangements and decision making: The project has been implemented following UNDP's National
- 752 Implementation Modality (NIM), whereas, the Ministry of Environment Protection and Agriculture (MEPA) will
- serve as the Implementing Partner, and UNDP assume the role of Project quality assurance and providing oversight
- through its Headquarter, Regional and Country Office.
- Considering the programmatic approach of SDC, SIDA and GCF funded interventions, the projects shared the same
- 756 Programme Steering Committee (PSC) that is composed of the representatives from: MEPA, NEA, EIEC, EMS,
- MRDI, UNDP, SDC and representatives of the local governments and civil society organizations. The PSC is
- responsible for making, by consensus, management decisions.
- The project is guided by a PSC as the executive decision-making body of the project. The PSC is composed of
- 760 representatives from MEPA, NEA, EIEC, EMS, MRDI, UNDP, SDC and representatives of the local governments and
- 761 civil society organizations. The PSC is responsible for making, by consensus, management decisions.

According to the UNDP Project Document, a National Project Director (NPD) is to be appointed by the Ministry of Environmental Protection and Agriculture (MEPA) and should serve as the chair of the Programme Steering Committee (PSC). The NPD was appointed in early 2019 and holds the position of Deputy Minister at MEPA. In this role, the NDP provides overall coordination and support for the project on behalf of the ministry, ensuring alignment with national objectives and policies. Additionally, the NPD is responsible for the day-to-day execution of the project on behalf of MEPA, working within the guidelines established by the PSC. This includes overseeing project activities, facilitating inter-agency coordination, and ensuring that project goals are met in a timely and efficient manner.

A full-time Project Manager (PM) was hired by UNDP. The PM is responsible for managing the project on a day-to-day basis. The PM provides daily support to the NPD to ensure the project produces and results specified in the project document, meet the required standard of quality, timeliness, and cost criteria. The annual work plans are being prepared by the PM and reviewed and cleared by the UNDP Country Office as part of the quality assurance and reviewed and approved by PSC. The PM is responsible for managing and monitoring the project risks initially identified and submitting new risks to the PSC for consideration and decision on possible actions if required and updating the status of these risks by maintaining the project risks log according to the NIM Guidelines.

In January 2019, a joint Project Management Unit for GCF and SDC projects have been established. During the second quarter of 2019, the PMU was fully formed and consisted of the SDC Project Manager, GCF project coordinator, Chief Technical Advisor, Monitoring and Evaluation Specialist, and Administrative Assistant, Procurement Specialist, respective Team Leaders under GCF project (Team Leader in Hydrometeorology, Team Leader in MHEWS, Team Leader in community-based processes), and UNV volunteer. A team of individual international and national experts were also hired for specific project activities.

783 Figure 2: Project organizational structure.



Relevance is the extent to which Project's objectives are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies.

Relevance to the needs of stakeholders: The project activities are highly relevant to the needs of the participating stakeholders, particularly in addressing the limited capacity of relevant authorities to manage climate risks. The project addresses the lack of accurate climate risk information and the inability of institutions to generate such data due to the absence of a standardized and harmonized national framework for hazard mapping and assessment. The project directly responds to these gaps by helping stakeholders access and utilize critical climate risk information. It also addresses the need for planning processes dedicated to multi-hazard risk management, including development of Emergency Plans. Furthermore, the project tackles the absence of regulations that define requirements and methodologies for hazard mapping, such as establishing procedures, criteria, data needs, formats, and assessment methods.

At the local level, municipalities face significant gaps in planning for and preparing for risks, including limited capacities to effectively respond during emergencies. Many lack the necessary resources, technical expertise, and infrastructure to manage and mitigate risks. By developing Emergency Management Plans, the project provided critical and much-needed support to 11 municipalities, enabling them to better anticipate, prepare for, and respond to potential hazards. These plans have helped to address local vulnerabilities and have strengthened the municipalities' ability to manage emergencies more effectively.

At the individual level, trainees who participated in capacity-building activities—particularly those from the NEA, EMS, and other institutions—confirmed during the terminal evaluation engagement that the activities were highly relevant to their professional needs. These capacity-building efforts helped them gain a better understanding of and ability to implement hazard mapping and assessments, enhancing their overall effectiveness in responding to climate-related risks.

Alignment with United Nations Partnership for Sustainable Development (UNPSD) and UNDP Frameworks: The project aligns with UNDP's commitment to supporting CCA and DRR, as outlined in the UNPSD- Georgia 2016-2020⁶, specifically Outcome B, which focuses on building community resilience through improved environmental governance and DRR. It also aligns with the United Nations Sustainable Development Framework (UNSDCF) 2021-2025⁷, particularly Outcome 5, which aims to enhance resilience through better environmental governance and climate action in Georgia.

Alignment with the UNDP Country Programme Document (CPD): The project is consistent with Outcome 5 of the UNDP CPD 2021-2025⁸, which aims to enhance resilience through improved environmental governance, climate action and sustainable management and use of natural resources in Georgia. *Output 2.1 under Outcome 5 aims* to enhance environmental governance and institutional capacity to enable rational, equitable and sustainable use of natural/land resources, to ensure conservation of ecosystems, use of innovative and climate-friendly technologies for inclusive green economy, energy efficiency and clean energy production, and make communities more resilient to environmental shocks.

The UNDP Strategic Plan for 2022-2025 9 outlines a comprehensive approach to addressing the complex, interconnected challenges facing the world today, including poverty, inequality, climate change, and the aftermath of the COVID-19 pandemic. The project is also aligned with the UNDP Strategic Plan 2022-2025, contributing to outcomes related to building resilience to diverse shocks and crises, including conflict, climate change, disasters and epidemics.

Relevance to SDC programmes: The project aligns with the SDC strategy for DRR in Georgia, including initiatives like the SDC Caucasus Network for Sustainable Development in Mountain Regions, which aims to reduce vulnerabilities to climate-induced hazards and foster regional cooperation. It aligns with the SDC/ADA/UN Women's project on women's economic empowerment in the South Caucasus, ensuring gender considerations in multi-hazard risk profiling and planning.

Relevance to national policies and priorities: The project is fully aligned with Georgia's national environmental policies and plans, including the Economic Development Policy, BDD, NEAP-3, NDC, and the National DRR Strategy and Action Plan. It is also aligned with EU directives under the EU-Georgia Association Agreement, particularly regarding flood risk assessment and management.

⁶UNSPD 2016-2020, available <u>here</u>

⁷ UNSDCF 2021-2025, available here

⁸ UNDP CPD 2021-2025, available <u>here</u>

⁹ UNDP Strategic Plan 2022-2025, available here.

International obligations: The project assist Georgia to meet its international obligations, particularly under the Sendai Framework for Disaster Risk Reduction (2015-2030)¹⁰- priority 1 which states that policies and practices for disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment. Such knowledge can be leveraged for pre-disaster risk assessment, for prevention and mitigation and the development and implementation of appropriate preparedness and effective response to disasters.

The project also contributes to the achievement of SDG 13 on climate action, specifically, goals related to strengthening the resilience and adaptive capacity to climate-related hazards and natural disasters in all countries and improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning; and Promote mechanisms for raising capacity for effective climate change-related planning and management in the least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

4.2Achieved Results

Findings

835

836

837

838

839

840

841

842

843

844

845

846

847

The project made significant progress in producing technical deliverables, such as hazard maps, methodologies, and Emergency Management Plans, and in building capacities for hazard mapping and risk assessment. However, despite progress in achieving most of the outputs, the transition from outputs to outcomes has been limited in this project due to several systemic issues in Georgia. The natural hazard-related governance structure remains underdeveloped in Georgia and characterized by unclear institutional responsibilities and accountability for natural hazard management, which hampered the effective use of the project's deliverables. The project's long-term success depends on fostering an enabling environment where these deliverables can influence policy reforms and institutional practices.

Under outcome 1, the project significantly enhanced both technical and human capacities related to Georgia's Multi-Hazard Early Warning System (MHEWS), particularly in hazard mapping, risk assessment, and hazard modelling. Notable achievements include the development of six methodologies for multi-hazard mapping, training a total of 167 NEA staff members have been trained (of which 60 women), including 27 NEA staff members trained on drought, flood, and avalanche modelling, and hands-on learning experiences through study tours in Switzerland and 150 trained through in-job training. Additionally, the project conducted 17 on-the-job training sessions involving 150 participants from the NEA's Hydromet and Geology departments. A comprehensive Capacity Development Plan was also created, detailing measures for enhancing institutional capabilities over time, although future funding for its implementation remains uncertain.

Despite these advancements, the project faced challenges in formalizing the developed methodologies and integrating them into Georgia's policy framework. While the methodologies were used for hazard mapping in 11 river basins, they have yet to be formally approved by the NEA. Moreover, the project has not delivered specific legal or institutional reforms to ensure the long-term adoption of hazard mapping and risk modelling tools, instead preparing only a roadmap for future policy development.

Under outcome 2, the project made important progres**s** in developing individual hazard maps and risk assessments for all 11 river basins in Georgia, which were intended to inform zoning, Emergency Management

¹⁰ Sendai Framework for Disaster Risk Reduction, available here

Plans. However, the adoption of these tools has been limited due to insufficient technical capacity, unclear institutional responsibilities, and a lack of financial resources within municipalities. Many municipalities lack essential capacities (e,g lack of GIS specialists), which hinders the effective use of the hazard maps. Despite these challenges, the hazard maps have been successfully used to select vulnerable communities for risk reduction measures under GCF/SIDA projects, with community-based disaster risk management (CBDRM) plans developed for 45 communities.

The project also developed 11 Emergency Management Plans for municipalities, five of which have been formally approved. These plans outline detailed risk scenarios and provide clear instructions for emergency response based on local hazard profiles. Municipalities trained 165 staff in multi-hazard response and preparedness, although capacity to implement these plans varies due to unresolved institutional accountability and financial constraints. There is a need for better cross-municipality collaboration for joint planning and response, as many hazards impact multiple municipalities simultaneously. Expanding these efforts to other municipalities remains a challenge due to the lack of technical expertise and resources, signalling the need for continued support and capacity-building in future project phases.

Project Objective

848

849

850

856

857

858

859

860

861

862

- Population's vulnerabilities towards climate-induced hazards are reduced and regional cooperation on adaptation challenges is fostered in the South Caucasus
- The project's contribution to its stated objective of reducing population exposure to climate-induced hazards is directly tied not only to its success in producing technical deliverables but also to its ability to influence the enabling environment for the uptake of these technical outputs. Simply producing hazard maps, methodologies, and Emergency Management Plans is not necessarily enough; the real impact lies in how effectively these tools are integrated into policy and decision-making processes at the national and local levels.
 - Overall, despite progress in achieving most of the outputs, the transition from outputs to outcomes has been limited in this project due to several systemic issues in Georgia. The natural hazard-related governance structure remains underdeveloped in Georgia and characterized by unclear institutional responsibilities and accountability for natural hazard management, which hampered the effective use of the project's deliverables. Additionally, weak regulatory frameworks, limited financial resources, time, and insufficient capacity to implement the methodologies and tools developed have further restricted the uptake of the project outputs. These factors have collectively impeded the project's potential to influence policy reforms and ensure the long-term sustainability of its outcomes.
- The project has been successful in producing most of its planned outputs, including key methodologies, hazard maps, and Emergency Management Plans. It has also made progress in building institutional and individual capacities for hazard mapping, risk assessment, and planning. However, a notable shortcoming is related to policy frameworks not developed to reform the legal and institutional structures necessary for ensuring the sustainable rollout of hazard mapping and risk modelling methodologies. This gap has hindered the project's ability to institutionalize these tools and integrate them into long-term national strategies.
- The project's success in reducing exposure will therefore depend on creating a supportive environment that encourages the use of these technical deliverables in shaping policy reforms, improving governance, and enhancing institutional capacities. This requires addressing existing barriers, such as weak governance structures,

unclear institutional responsibilities, and limited financial and regulatory frameworks, to ensure that the technical outputs are not just developed but are actively applied in strategic planning and risk management.

Table 2: Project Outcome indicators and targets

Result / Indicators	Baseline	End of PROJECT target (cumulative)	Achieved
Indicator 1 (UNDP): # of people benefitting from reduced exposure to climate-induced hazards through Georgia's national and local governments' risk-informed decision-making, disaggregated by direct and indirect beneficiaries and gender	0 (GE)	1.7 million direct beneficiaries (i.e., 47% of Georgia's population, among them 0.89 million women and 0.82 million men)	The TE team understands this indicator as a whole of programme level indicators and not necessarily at the level of SDC project specifically. As such, the impact indicators cannot be accurately estimated until all interventions under the program are complete.
Indicator 2 (UNDP): % of the Government's spending on CCA measures in Georgia.	0 (GE)	TBD (GE)	No data available on this indicator

Project Outcomes

Outcome 1: The Georgian authorities have the financial, technical, and human capacities to establish a nation-wide multi-hazard hydro-meteorological risk monitoring, modelling and forecasting

The project delivered significant capacity advancements across various components of the Multi-Hazard Early Warning System (MHEWS), with a particular focus on areas such as hazard mapping, risk assessment, and hazard modelling. Notably, capacities related to hazard modelling and mapping within the NEA have shown a marked increase, progressing from a low to a medium level of capability. The project contributed to the institutional capacity building of the Georgian authorities particularly through developing six methods for multi-hazard mapping and risk assessments, provision of hydrometeorological monitoring equipment.

At the human capacities side, a total of 167 NEA staff members have been trained (of which 60 women), including 27 NEA staff members (7 women, 20 men) were trained in drought modelling and validation, flood dam-breach modelling, avalanche reporting, and the operation and maintenance of the observation network, using the SOP developed by the project. Additionally, 10 NEA staff members (1 woman, 9 men) and 1 representative from the National Security Council's Office participated in study tours in Switzerland to learn best practices for monitoring, forecasting, and managing avalanche, landslide, and mudflow risks. The knowledge obtained guided the process of development of snow avalanche forecasting approach in the country. Additionally, a total of 17 on-the-job trainings have been conducted, with 150 participants (53 women, 97 men) from the NEA's Hydromet and Geology departments, which are the project's direct partner institutions.

The capacity development efforts included study tours to Switzerland for NEA staff members to enhance their skills in managing avalanche, landslide, and mudflow risks. Six NEA staff members (1 female, 5 male) responsible for avalanche risk management gained hands-on experience in advanced practices at various levels in Switzerland, which helped guide the development of a snow avalanche forecasting approach in their home country. A similar tour for landslide and mudflow risk management involved four NEA staff members and one representative from the National Crisis Management Center (Department) of the National Security Council's Office, providing them with international best practices to improve their capabilities.

The project developed a comprehensive Capacity Development Plan to address the human and technical capacity needs of agencies involved in Georgia's EWS. This plan outlines capacity indicators, identifies gaps, and details measures for enhancing institutional capabilities over short, medium, and long-term periods, with an estimated budget of \$1.5 million, short-term and some of the medium-term priorities are going to be funded by the GCF program. However, challenges persist regarding future funding sources and the institutional arrangements for future implementation of this plan, raising concerns about sustainability. The plan also emphasizes gender-sensitive capacity building. Additionally, a Capacity Assessment Report was produced, evaluating the current state of Georgia's MHEWS and setting goals for capacity enhancement, particularly focusing on integrating climate information into agricultural assessments to improve resilience and effectiveness in mitigating climate-related risks.

The project completed six methodologies for individual hazard modeling and mapping in Georgia (not formally approved yet), covering landslides, mudflows, digital elevation models (DEM), flood hydraulics, windstorms, hailstorms, droughts, and multi-hazard mapping. These methodologies were developed considering existing data availability in Georgia and aligned with international best practices and EU requirements. However, they have not yet been formally approved by NEA, even though they are already in use for hazard mapping in 11 river basins. The project team noted that these methodologies will be transformed into technical regulations that will be part of the legal documents for hazard zoning policy as part of phase 2 of this project. Further, the project successfully procured and utilized LIDAR and DEM data for hazard modeling but faced challenges related to data form, format, and quality, leading the team to use advanced AI tools to generate proxy risk probability data.

At the policy level, the project didn't deliver specific policy frameworks aiming at reforming the legal framework and institutional set up to ensure roll out of hazard mapping and risk modelling methodology. However, the project has delivered policy preparatory work for policy development including Analysis of Legal and Regulatory Framework for Disaster Risk Knowledge Component of Multi-Hazard Early Warning System (MHEWS) in Georgia to examine the current legal framework and institutional arrangements for disaster risk knowledge component of the multi-hazard early warning system in Georgia, to identify gaps, and to recommend changes to the existing legislation. The project has also prepared a roadmap of for developing the legal framework for hazard mapping and zoning policy, which identifies the laws and sub-laws that need amendment. The road map also defines scale, scope of the hazard maps that needs to be produced, and sectors that will be mandated to use the hazard maps. The overall objective of the roadmap is to assist UNDP and the Government of Georgia in developing a robust National roadmap for development of legal framework for hazard mapping and zoning that would regulate standards for hazard modelling, assessment, mapping, and zoning. The expectation that GCF project will fulfill this gap may not be reasonable as GCF project document clearly states that Activity 2.1 (*Policy, regulatory and legal*

frameworks in place and institutional capacities built for enhanced use of climate information and MHEWS) will be implemented through SDC funded interventions¹¹.

Further, the project developed two Standard Operating Procedures (SOPs): one for the hydrometeorological observing network in Georgia, ensuring its sustainable and efficient operation, maintenance, and the collection of high-quality observational data, accompanied by relevant training for NEA observers. The second SOP, along with communication protocols and Codes of Conduct, was created for agencies involved in the Multi-Hazard Early Warning System (MHEWS) and response, aiming to standardize performance, reduce misunderstandings, and ensure compliance with industry regulations through stakeholder collaboration.

In terms of integrating gender consideration into the policy frameworks, this target remains unmet as no such policy documents have been prepared. However, the roadmap document, which is expected to guide the development of future legal frameworks, does not appear to incorporate any references to gender mainstreaming which undermines the importance of ensuring that future legal instruments are gender-sensitive. Nonetheless, Gender considerations are integrated into emergency management plans in accordance with Georgian regulations that define the template for these plans.

Table 3: Project Outcome indicators and targets

933

934

935

936

937

938

939

940

941

942

943

944

945

946

Result / Indicators	Baseline	End of PROJECT target (cumulative)	Achievement
Indicator 1.1: number of norms, policies and political processes developed in multi-hazard hydrometeorological risk monitoring, modelling, and forecasting fields	0 (GE)	At least 3 policy documents developed (GE)	Partially achieved No policy documents have been prepared, however preparatory work has been done to assess the current regulatory framework and set road map for future policy development.
Indicator 1.2: number of gender considerations reflected in newly developed policy documents and technical guidance	0 (GE)	At least 3 policy documents reflecting gender considerations (GE)	Partially achieved Indicator 1.2 achievement is inherently dependent on the achievement of indicator 1.1. The preparatory documents do acknowledge gender aspects.
Indicator 1.3: number of partner government agencies with staff whose	0 (GE)	At least 50 staff from NEA and EMS with increased capacities in hazard mapping	Achieved /Exceeded target

¹¹ See page 12 of the GCF project document

institutional capacities in risk	methodology and tools	A total of 37 staff (8
knowledge development increased.	(GE)	women) from NEA and
		EMS have directly
		increased capacities in
		hazard mapping
		methodology tools, and
		150 (53 women) staff
		through on job training and
		technical training
		workshops.

- Output 1.1: Multi-hazard mapping and risk assessment methodology is developed and institutionalized on the national level
- 950 Activity 1.1.1: Standardization of the hazard mapping and risk assessment methodologies.
- 951 Six methodologies were completed for individual hazard modelling and mapping, including:
 - Landslide and Mudflow Mapping and Modelling Methodology,
 - Methodology for creating and editing a Digital Elevation Model (DEM) covering all of Georgia,
 - Methodology for flood hydraulic modelling,

953

954

955

956

957

- Methodology for windstorms and hailstorms hazard mapping,
- Methodology for all types of drought hazard modelling, mapping and assessment, and
- Methodology for multi-hazard mapping.
- Methodology for Snow avalanche modelling and mapping
- The development of these methods considered existing data availability in Georgia, and aligning with international best practices and EU requirements and commitments of Georgia. However, these methods are not yet formally approved by NEA despite being already used for hazard mapping and assessments in 11 river basins.
- Academic institutions were consulted regularly through TAWGs, when methodologies were discussed, feedback obtained and validated.
- 964 **Activity 1.1.2:** Acquisition and collection of the required data for hazard mapping
- All the necessary LIDAR and Digital Elevation Model (DEM) data were successfully procured and utilized in hazard modeling as part of the project. While the project team generally had access to the available data, they encountered challenges regarding the form, format, and quality of the collected data. The data often did not meet the specific requirements needed for accurate risk modeling, necessitating the use of advanced AI tools by the team of consultants to generate the required proxy risk probability data, enabling the modeling process to proceed effectively despite the initial data limitations.
- Additionally, the project faced significant constraints concerning the availability and affordability of satellite
- imagery, which is critical for the modeling process. The high cost of these satellite images exceeded the project's
- 973 financial capacity, creating a further limitation in the data available for risk modeling.
- The GCF project procured and installed hydrometeorological monitoring equipment for all 11 river basins including
- 7 Meteorological Stations, 50 Meteorological Posts, 6 Snow Measurement Stations and 26 Hydrological Posts. NEA
- 976 (with support of the GCF project) installed equipment in all 11 river basins after identification of exact locations

- for installation in Georgia and making technical and field assessments to fit the equipment for forecasting purposes.
- 979 Output 1.2 Institutional and legal frameworks are in place to roll-out the standardized hazard mapping and risk 980 assessment methodology.
- Activity 1.2.1: Review and proposed amendments to legal framework and institutional set up to ensure roll out of hazard mapping and risk modelling methodology.
- Activity 1.2.1 addresses the re-strainers for risk-informed decision-making and should be in line with the EU standards and relevant directive. The project aimed to create a legal-regulatory basis for multi-hazard assessment and management, and multi-hazard EWSs, including protocols and SOPs for data collection, processing, analysis.
- A team of SDC back stoppers assisted the PMU in developing a roadmap for establishing the legal framework to regulate hazard modelling and mapping in the country. The roadmap outlined three key stages to achieve this goal:
 - 1. Developing standards for hazard modelling and mapping and identifying the necessary legal changes to be outlined in a policy/strategy document.
 - 2. Creating a package of legal amendments.

990

991

992

993

994

995

996

997

998

999

1005

1006

1007

1008

1009

1010

1011

- 3. Integrating hazard modelling and mapping requirements into sectoral laws.
- The project contracted GIS and RS Consulting Centre (Geographic), which prepared a stakeholder mapping report, and an analysis of international best practices and local legislation related to hazard modelling and zoning. These reports identified key stakeholders from national and local government institutions, academia, and civil society, who should form an inter-sectoral working group to collaboratively develop and agree on the report. This working group was formed based on nominations from the respective stakeholders, and the first inception meeting was held in December 2023. The stakeholders were divided into three focus groups, with separate focus group meetings conducted in February 2024.
- Although the draft roadmap has been prepared, but it is yet to be implemented during the proposed second phase of the project (2024-2027). No legal documents/ laws or by laws have been developed or amended to regulate multi-hazard mapping and risk assessment. Therefore, Output 1.2.1 indicator target (at least three legal documents developed to regulate multi-hazard mapping and risk assessment) has not been achieved (refer to Table 4).
 - The project developed two SoPs:
 - One SOP was developed for the hydrometeorological observing network in Georgia to ensure sustainable, proper, and efficient operation and maintenance of the hydrometeorological observing network and obtaining high quality observational data. Relevant training sessions for NEA observers were also conducted.
 - A Standard Operating Procedure (SOP), communication protocols and Codes of conducts for each of the agencies responsible for various elements of the MHEWS and response, to be implemented in close collaboration with stakeholders. This aims to achieve uniformity of EWS performance while reducing misunderstandings and non-compliance with industrial regulations.
- Both SoPs make no reference to issues related to gender mainstreaming and women participation and considerations.

- 1015 Output 1.3 Knowledge on multi-hazard mapping and risk assessment is available and enhanced.
- 1016 Activity 1.3.1: Strengthening capacities for multi-hazard mapping and risk assessment.
- 1017 Activity 1.3.1 covers the development of technical capacities related to risk identification and assessment,
- prevention, risk reduction, risk transfer, preparedness, climate risk management and climate change adaptation.
- 1019 The project, in collaboration with the Caucasus Research Centre Georgia, developed a comprehensive Capacity
- 1020 Development Plan aimed at addressing the human and technical capacity needs of agencies and institutions
- involved in the Early Warning System (EWS) in Georgia. This plan outlines the capacity indicators, identifies existing
- 1022 gaps, and specifies the necessary measures to enhance the capabilities of these institutions. The plan is structured
- to cover specific capacity development activities across short, medium, and long-term periods, providing a clear
- 1024 roadmap for systematic improvement.
- The estimated budget required to fully implement this Capacity Development Plan is approximately \$1.5 million.
- 1026 While some activities have been funded by SDC project, others will be funded by the GCF program, however, a
- significant challenge remains unresolved: the source of funding for these activities beyond the duration of the
- 1028 current project. Additionally, there is ambiguity regarding which entity will be responsible for the continued
- implementation and monitoring of the plan in the future, posing a risk to the sustainability of the capacity-building
- efforts. The capacity development plan has taken into consideration the importance of gender sensitive capacity
- 1031 building planning.
- 1032 As part of the project, a Capacity Assessment Report was also produced. This report provides a thorough
- 1033 evaluation of the institutional and technical capacities of the MHEWS in Georgia. It assesses the current state of
- 1034 MHEWS, identifying strengths and areas requiring improvement, and sets out short, medium, and long-term goals
- and actions for capacity enhancement. Moreover, the report places a strong emphasis on the use of climate
- 1036 information, particularly in the context of integrating this information into agricultural assessments. This
- integration is crucial for developing more resilient agricultural practices and improving the overall effectiveness
- of early warning systems in mitigating climate-related risks.
- To effectively monitor the progress made in enhancing capacity, a comprehensive monitoring tool was developed
- 1040 to track the implementation of the capacity development plan. This tool is designed to systematically assess
- 1041 advancements across various components of the Multi-Hazard Early Warning System (MHEWS), with a particular
- 1042 focus on areas such as hazard mapping, risk assessment, and hazard modeling.
- The monitoring tool functions by evaluating the achievement of specific targets set within the capacity
- development plan. It does so by calculating a capacity development score for each area, allowing for a clear,
- 1045 quantifiable measure of progress. These scores provide a snapshot of the current capacity levels and help in
- identifying areas where further development is needed.
- 1047 According to the findings of the mid-year evaluation, the tool has revealed significant improvements in several
- 1048 key areas. Notably, capacities related to hazard modeling and mapping within the NEA have shown a marked
- increase, progressing from a low to a medium level of capability. This improvement underlines the effectiveness
- of the capacity development initiatives undertaken and highlights the areas where NEA has built greater resilience
- and expertise. Below is a summary of the results derived from the monitoring tool, offering a detailed overview

of the progress made in various capacity development areas. (Low capacity – score from 0 to 1 Mid capacity – score from 1 to 2 High capacity – score from 2 to 3):

Capacity development area	Baseline score (2020)	Target score	S	Achieved score.	
		2021-2023	2024- 2025	2026- 2027	2021-2023
Flood modelling and mapping	1.7	2	2.5	3	2.39
Landslide and mudflow hazard modelling and mapping	1.04	2	2.5	3	2.06
Hailstorm and windstorm hazard modelling and mapping	1.55	2	2.5	3	1.88
Snow avalanche modelling and mapping	1.28	2	2.5	3	1.78
Drought hazard modelling and mapping	1	2	2.5	3	1.57

A total of 18 on-job trainings for 150 participants from NEA and EMS (53 female, 97 male) were completed. Trainings included Drought Modelling, Rockfall Modelling, Debris Flow and Mudflow Modelling, Rock Avalanche Modelling, Large Scale Avalanche Modelling and Basics of Snow Physics and Avalanche Dynamics. An introductory training course on hydraulic modelling was provided to the Roads Department staff under the Ministry of Regional Development and Infrastructure, promoting modern approaches for flood protection measures. However, technical training courses for only 4 undergraduate students (3 female, 1 male) and supporting the development of university courses on hazard mapping and risk assessment were conducted.

The capacity development efforts also encompassed a study tour to Switzerland for six staff members (1 female and 5 male) from the NEA who are responsible for avalanche risk management. The purpose of the tour was to enable these individuals to gain hands-on experience and insights into advanced avalanche modeling, mapping, forecasting, and mitigation practices at the community, canton, and national levels in Switzerland. During the study tour, the NEA staff had the opportunity to engage directly with key Swiss institutions involved in avalanche risk management. The knowledge and expertise acquired during this visit have been instrumental in guiding the development of a snow avalanche forecasting approach in their home country, incorporating the valuable lessons learned from the Swiss experience.

A similar study tour was organized and conducted for NEA staff involved in landslide and mudflow monitoring, forecasting, early warning, and risk management. This tour was attended by four staff members (all male) from the Geology and Hydrometeorology Departments of NEA, along with one representative (male) from the National Crisis Management Center (Department) of the National Security Council's Office. The tour provided these professionals with an in-depth understanding of international best practices in managing these hazards, equipping them with the knowledge needed to enhance their own country's capabilities in these areas.

To further boost technical capacities in hazard modeling, the project facilitated the acquisition of 10 high-performance desktop computers (i7 and i9 processors) for the Geology and Hydrometeorology Departments of NEA. These powerful computers are specifically designed to handle the processing of large data files and the running of high-resolution hazard models, ensuring that the departments are well-equipped to manage and analyze complex hazard data efficiently.

Table 4: Output 1.1, Output 1.2 and Output 1.3 indicators and targets

Result / Indicators	Baseline	End of PROJECT target (cumulative)	Achievement				
Output 1.1: Multi-hazard mapping and risk assessment r national level	nethodology	is developed and institu	utionalized on the				
Indicator 1.1.1: number of unified methodologies for multi-hazard mapping and risk assessment developed and institutionalized.	0	1	Achieved Six methodologies were developed for multi-hazard mapping and risk assessment but not formally approved yet.				
Output 1.2: Institutional and legal frameworks are in pla risk assessment methodology.	ce to roll-ou	t the standardized multi	- -hazard mapping and				
Indicator 1.2.1 number of legal documents developed regulating multi-hazard mapping and risk assessment methodology with consideration of gender/vulnerable groups	1 Law on Civil Safety; charters of NEA and EMS	Revisions of at least 3 legal documents/bylaws regulating assessment, modelling and mapping	No achieved No legal documents/ laws or by laws have been developed or amended to regulate multi-hazard mapping and risk assessment				
Indicator 1.2.2 number of gender sensitive SoPs and guidance documents for multi-hazard risk assessment and EWS	0	At least 2 SoPs for multi-hazard risk assessment and EWS	Achieved. Two SOPs were prepared.				
Output 1.3 Knowledge on multi-hazard mapping and risk assessment is available and enhanced.							
Indicator 1.3.1 number of gender sensitive capacity development plans put in place to enhance the knowledge on nation-wide multi-hazard mapping and risk assessment among the target stakeholders	0	1 Capacity Development Plan with at least 50% implementation rate of its activities by the end of the project	Achieved. The plan has been developed but no evidence available on the implementation rate.				

Result / Indicators	Baseline	End of PROJECT target (cumulative)	Achievement
Indicator 1.3.2 number of NEA/EMS specialists and undergraduate students trained in hazard mapping and risk profiling methodology.	0	At least 50 persons (including the specialists (F/M) from the NEA and EMS, and 50 undergraduate students at least 25% women participation (F/M)) trained in nation-wide multihazard mapping and risk profiling	Achieved. 150 from NEA and EMS/exceeded target 35% female participation 4 undergraduate students trained (75% female)

Outcome 2: Vulnerable people, communities and regions in Georgia have increased resilience and face fewer risks from natural and climate change threats to their livelihoods

Individual hazard maps and assessments were completed for all 11 river basins in Georgia, with the risk maps and profiles intended to guide zoning of development activities and inform Emergency Management Plans. However, the uptake of these tools has been limited due to insufficient capacity within targeted organizations, limited financial resources for implementing risk reduction measures, and unclear institutional and legal arrangements defining responsibilities for risk mitigation. For example, at the municipal level, there is still limited technical capacities to understand and apply hazard maps, and in most cases, no GIS specialist available in the municipality to deal with these maps. As a result, the potential of these tools to enhance risk management and planning remains underutilized. The lack of public access to tailored risk information is also limiting the potential for their broader uptake and use. Without open access to these crucial tools, local communities, businesses, and other stakeholders are unable to fully understand the risks they face or incorporate this information into their own planning and decision-making processes.

On a positive note, the hazard mapping and assessment have been used to inform the selection of communities for risk reduction measures under the GCF/SIDA projects and serve as a basis for a multi-hazard early warning system funded by the GCF. Informed by the risk maps and assessment along with vulnerability assessment, 45 communities have been selected as the most vulnerable and Community-Based Disaster Risk Management (CBDRM) plans were developed for them, more work underway to identify 55 more communities, also 15 structural flood measures are being implemented across the country in 10 municipalities (funded by GCF/SIDA) informed by the hazard maps and assessments.

The project played a role in supporting the EMS by assisting in the development and revision of standard methodologies for risk planning. In collaboration with the GCF program, the project provided valuable recommendations and comments aimed at enhancing the existing methodologies and establishing SOPs. These efforts were thoroughly discussed and agreed upon with the EMS, however, the proposed amendments have not yet been formally incorporated into the legislation. This presents a challenge in ensuring that the enhanced methodologies and SOPs are formally recognized and integrated into the legal framework, which is essential for improving emergency management and risk planning processes at the national level.

The project created 11 Emergency Management Plans(of which 5 formally approved) for municipalities including Telavi, Sighnaghi, Akhmeta, Lagodekhi, Gori, Kobuleti, Abasha, Samtredia, Khobi, Senaki, and Tbilisi. These plans provided detailed risk scenarios, resources, roles, and responsibilities, along with legal frameworks and communication plans. The plans ensure preparedness of local governments to the potential risks posed to the area. It provides the local government with clear instructions how to act during the emergency situations considering the hazard and risk profile of the area based on the needs of vulnerable groups. As a result, the plans will contribute to improved capability for effective preparedness and response of the local governments serving in total 154,295 people.

The formulation of these plans was backed by establishing working groups at the local level as a coordination platform first and to keep the plan up to date on annual basis. This also involved education program on risk management targeting key municipality staff, local authorities and neighbouring municipalities who share the river basin, this program aimed to build human capacities to develop and implement the Emergency Management Plans. A total of 165 municipal employees (49 women and 116 men) across 11 municipalities were trained, with approximately 30% female participation, in multi-hazard response and preparedness. The plans were tested through a simulation exercise is to validate and enhance Emergency Management Plans.

The capacity to implement these Emergency Management Plans varies significantly from one municipality to another. The municipalities are mandated to develop procedure for ensuring safety and protection of populations and territory in emergency situations in municipalities, however, local municipalities are facing significant challenges including unresolved issues around institutional accountability and financial agreements with the national government in Georgia. Without a clear understanding and agreement on which institutions are responsible for implementing actions identified in the plans and how financial resources will be allocated or supported, local authorities have been hesitant to formally endorse the plans. Financially, municipalities expect that national budget allocations will be made to carry out preparedness activities, especially those that involve large and medium infrastructure projects aimed at risk reduction which creates a vulnerability in their ability to execute plans effectively. Additionally, many municipalities face challenges due to the limited availability of equipment, which hampers their ability to respond promptly and adequately to emerging risks.

Moreover, changes in political leadership within municipalities can pose a risk to the continuity and sustained ownership of these risk management efforts. Such leadership shifts may disrupt the momentum of ongoing initiatives, emphasizing the need for consistent advocacy to ensure that risk preparedness and response remain a priority regardless of political changes.

Given that risk preparedness and response often extend beyond the boundaries of individual municipalities, there is a clear need to strengthen cross-municipality collaboration for joint planning and response efforts. Many climate and disaster risks, such as floods, landslides, and other hazards, affect multiple municipalities simultaneously, making coordinated action crucial for effective risk management. By fostering greater collaboration between neighbouring municipalities, they can pool resources, share information, and develop unified strategies that address regional risks more comprehensively. Strengthening joint planning will ensure that municipalities are better equipped to handle large-scale risks, optimize the use of limited resources, and create cohesive disaster Emergency Management Plans.

By developing 11 Emergency Management Plans for 11 municipalities, the project successfully covered approximately 15% of all municipalities in Georgia. However, at present, there is no clear path for replicating these

efforts on a broader scale, as many other municipalities lack the technical expertise and resources to independently develop similar plans without substantial backstopping and support. This gap highlights the need for continued assistance and capacity-building to ensure that all municipalities can effectively plan for and respond to risks. To address this challenge, it is recommended that Phase II of the SDC funding, if approved, should prioritize scaling up this initiative to cover further municipalities. Expanding the scope of the project would ensure that a greater portion of the country is equipped with the necessary Emergency Management Plans.

Table 5: Project Outcome indicators and targets

Result / Indicators	Baseline	End of PROJECT target (cumulative)	Achievement
Indicator 2.1: # of integrated risk management (IRM) actions implemented by local authorities for major river basins in Georgia	0	At least 10 municipal development plans (GE)	Achieved 15 structural flood measures are being implemented across the country in 10 municipalities (funded by GCF/SIDA).
Indicator 2.2: # of municipalities with specific measures related to climate change adaptation (CCA)/IRM incorporated in their development plans and budgets benefiting number of persons	0,	10 municipalities with 373'800 inhabitants	Achieved 10 with 373'800 inhabitants
Indicator 2.3: Participatory and inclusive processes put in place by 10 municipalities to involve local socially excluded groups and women in consultations	0	At least 30% participation by women and other vulnerable groups (GE)	Achieved. Across 10 municipalities, 45 communities have been selected as the most vulnerable and Community-Based Disaster Risk Management (CBDRM) were developed for them with women making up 49% of the participants

Output 2.1: Nation-wide, multi hazard maps and risk profiles based on risk assessments are developed

Activity 2.1.1 To develop the nation-wide multi-hazard maps and risk profiles for 11 river basins in Georgia.

This activity was implemented in partnership with the NEA. It included technical support and guidance from relevant international experts and on-job trainings for NEA staff. The risk zoning of the river basins was conducted using the hazard maps and the socio-economic vulnerability assessments to be developed under the GCF-co-funded intervention, in accordance with a consolidated methodology developed under activity 1.1.1.

Here is list of tasks completed:

- Successfully completed the processing of hydrometeorological and geological data for the Kura, Iori, Khrami-Ktsia, and Alazani river basins. This data is critical for understanding the current environmental conditions and potential hazards within these regions.
 - Conducted a comprehensive analysis of data availability for the Khrami-Ktsia and Iori river basins, specifically for landslide and mudflow modeling. This analysis identified the data gaps and ensured that sufficient data was available to accurately model these hazards.
 - Developed detailed landslide susceptibility and mudflow hazard maps for the Khrami-Ktsia, Iori, and Alazani river basins. These maps are essential tools for identifying areas at risk and informing risk management and mitigation strategies.
 - Completed the creation of flood hazard maps for the Chorokhi-Adjaristskali, Alazani, Iori, and Khrami-Ktsia river basins. These maps provide critical insights into flood-prone areas, aiding in the planning of flood prevention and response measures.
 - Developed composite multi-hazard maps with cascading factors for four river basins in Western Georgia: Supsa, Natanebi, Kintrishi, and Khobistkali. These maps incorporate a variety of hazards, including windstorms, hailstorms, floods, avalanches, droughts, and mudflows, offering a holistic view of the risks in these areas.
 - Building on the results from the national-level avalanche hazard map, produced local-level avalanche hazard maps for several river basins, including Enguri, Khobiststkali, Mtkvari, Chorokhi-Adjaristskali, Rioni, Khrami-Ktsia, Alazani, and Iori. The exercise also extended to the Kazbegi municipality, Tusheti, and Khevsureti regions, areas beyond the targeted 11 river basins but recognized for their substantial avalanche hazard risks. These maps are critical for local planning and disaster preparedness in these high-risk areas.

Individual hazard maps and assessments were completed for 11 out of 11 river basins. The risk maps and profiles are expected to serve multiple critical functions including guiding the zoning of development activities, and informing the development of Emergency Management Plans for various authorities. However, the uptake of risks maps and profiles has been limited thus far. This is primarily due to 1) the insufficient capacity within the targeted organizations to fully integrate and utilize risk maps and profiles in a manner that effectively informs decision-making processes; 2) limited financial resources available for implementing risk reduction measures; and 3) unclear institutional and legal arrangements that defines institutional responsibilities for risk mitigation. As a result, the potential of these tools to enhance risk management and planning remains underutilized at the moment, and phase 2 of this project and GCF umbrella project should focus on taking these into actions.

- On a positive side, the hazard mapping and assessment has been (and still being) used to inform the process of selecting communities to be supported with risk reduction measures under the GCF/SIDA projects, and also forming a basis for a multi-hazard early warning system funded through the GCF.
- Output 2.2: Municipal level multi-hazard response and preparedness capacities are enhanced.
- Activity 2.2.1 To develop the capacities of EMS and local municipalities in risk-informed preparedness and response planning, through support in developing the respective methodology and SoPs.
- Under this activity the project worked with the most vulnerable municipalities, including those municipalities where structural/mitigation measures will be implemented through GCF-co-funded intervention, to develop municipal climate-induced multi-hazard Emergency Management Plans. The activity included development of relevant capacities of the newly established EMS by supporting them in development of the required standardized methodology and by enhancing their capacities through ToT.
- The project developed a scorecard tool to assess the baseline capacity of each municipality to implement emergency response and risk management functions. The tool is used for evaluating the current capacity of the

Emergency Management Service, as well as select national ministries, for managing national efforts to improve risk and emergency management.

The project assessed the emergency management plans developed by municipal partners in collaboration with the Emergency Management Service (EMS) of Georgia. The assessment identifies opportunities to strengthen the planning efforts across the country, particularly in the context of managing risks related to natural disasters like floods, droughts, avalanches, and other climate-related risks. The review aimed to identify strengths, weaknesses, and opportunities for improvement in the current methodology used for emergency management planning at the municipal level. Additionally, it provided recommendations to enhance the overall effectiveness of these plans in managing risks and responding to emergencies, particularly those related to natural disasters and climate-related events.

<u>Activity 2.2.2</u> To develop the municipal level multi-hazard response and preparedness plans. The activity is to be implemented in partnership with the EMS and 11 target local municipalities with technical expertise from international experts.

The project developed 11 Emergency Management Plans for 11 municipalities (Telavi, Sighnaghi, Akhmeta, Lagodekhi, Gori, Kobuleti, Abasha, Samtredia, Khobi, Senaki, and Tbilisi). The plans' report included a detailed description of each municipality, risk scenarios covering various climate-related threats, equipment and resources available for emergency response, roles and responsibilities of emergency management agencies, legal frameworks and communication plans for emergencies and coordination with volunteers and NGOs.

The plans outlined both short-term and long-term recommendations to enhance emergency management plans.
These include data collection improvements, better coordination with civil society, and the integration of modern technologies and practices for risk management. It also emphasized the need for improved community awareness, more comprehensive training programs, and enhanced strategies for disaster preparedness, response, and recovery.

The plan emphasized on the importance on inclusion of vulnerable groups during emergency planning, data collection, training and awareness and equal access to resources.

As mentioned earlier, a total of 165 municipal employees trained (49 women, 116 men) in 11 municipalities (approximately 30% female) on multi-hazard response and preparedness.

Table 6: Output 2.1 and Output 2.2 indicators and targets

1206

1207

1208

1209

1210

1211

1212

1213

1214

1215

1216

1229

1230

Result / Indicators	t / Indicators Baseline End of PROJECT target (cumulative)			
Output 2.1: Nation-wide, multi haz implemented through multi-hazard vulnerability assessment and risk a will be EMS.	d mapping by NEA	and multi-hazard risk assessm	ent through socio-economic	

Result / Indicators	Baseline	End of PROJECT target (cumulative)	Achievement
		Enguri, Rioni, Chorokhi- Adjaristskali, Supsa, Natanebi, Khobistkali, Kintrishi, Khrami-Ktsia, Alazani, Iori, Mtkvari	
Output 2.2: Municipal level multi-	hazard response an	d preparedness capacities are	enhanced.
Indicator 2.2.1 number of standardized methodologies and SoPs for multi-hazard risk-informed, preparedness and response plans developed considering gender and vulnerable groups	0	1 unified methodology with SoPs	Partly achieved The project provided recommendations to enhance the existing methods and SoPs, but these are not formally integrated into the EMS legislation yet.
Indicator 2.2.2 number of gender sensitive municipal multi-hazard preparedness and response plans for major river basins in Georgia	0	10 target municipalities.	Achieved/ exceeded target 11 multi-hazard Emergency Management Plans developed of which 5 is formally approved
Indicator 2.2.3 number of 0 municipal employees with enhanced capacities in multihazard response and preparedness.		At least 20 municipal employees (6F/14M) in 10 municipalities	Achieved/ exceeded target 165 employees train, approximately 30% female

4.3Effectiveness

Findings

1232

1233

The project has been moderately effective in achieving its objectives, with major deliverables such as hazard maps and emergency plans successfully produced. However, and despite notable advances in addressing key barriers, challenges persist, particularly in relation to the underdeveloped governance structures for DRR in Georgia, with unclear institutional accountability and the limited regulatory frameworks for hazard mapping continue to slow progress. Although the project has invested heavily in building the capacities of government staff, technical gaps and institutional coordination issues remain.

The project has faced several challenges that have hindered its progress and the achievement of key objectives. A significant delay occurred in delivering hazard maps and assessments due to the initial failure of a consulting firm, requiring a shift to individual consultants, which slowed down other interrelated components of the GCF

and SIDA projects. The limited availability of accurate data and satellite imagery, compounded by the high cost of such resources, further impacted the quality and comprehensiveness of hazard mapping efforts. Additionally, the project struggled with finding specialized expertise in hazard mapping and risk assessment, particularly in Georgia, which necessitated the costly and time-consuming hiring of international consultants. Capacity issues within key agencies like the NEA, where staff were often overburdened with other duties, also delayed project activities.

The project has been generally somehow effective in meeting its objectives, as demonstrated by the achievement of key outputs and the progress made toward expected outcomes. Major deliverables, such as hazard maps and emergency plans, have been successfully produced, aligning with the project's original goals. However, the transition from outputs to outcomes is still in progress. While the creation of hazard maps and emergency plans is a significant accomplishment, the actual uptake and practical use of these tools, as well as the implementation of the emergency plans, are still evolving. Sustained success in these areas will require additional capacity building and financial support to ensure that local authorities and communities can effectively utilize the hazard maps and implement the emergency plans. Strengthening institutional capacities and securing long-term funding will be critical to fully realizing the project's intended benefits and ensuring its impact on reducing climate-induced risks is maintained over time.

The project has made notable progress in addressing the key barriers identified in the project design, but there is still a long way to go before these barriers are fully eliminated. For example, the poor governance structures for Disaster Risk Reduction, as highlighted in the project document, remain a significant challenge. Despite efforts to improve institutional accountability, the lack of a clearly defined framework and the absence of regulations specifying requirements and methodologies for hazard mapping continue to hinder progress. Additionally, while the project has made substantial investments in building the capacities of government staff at both the national and local levels, stakeholders engaged in this TE have agreed that capacity gaps persist. Although progress has been made, the remaining gaps in technical skills, knowledge, and institutional coordination still need to be addressed to ensure sustainable improvements in disaster preparedness and risk management. This requires that ongoing capacity-building efforts will be essential in future phases to fully empower stakeholders and ensure the long-term effectiveness of the project's objectives.

Success factors and challenges

One of the key success factors for the project was the effective integration and coordination between the three interconnected projects funded by the GCF, SDC, and SIDA. By design, these projects were interrelated, with significant complementarities among their activities and outputs. This synergy was maintained throughout project implementation, with coordination occurring on an almost daily basis. A major facilitator of this success was the fact that all project teams worked from the same office premises, enabling regular interactions and fostering a collaborative environment. Additionally, the projects shared several key human resources, such as the same gender specialist and M&E officers. This not only enhanced efficiency by reducing duplication of efforts but also strengthened coordination, making it easier to align activities and ensure that complementarities among the projects were effectively leveraged. This close-knit working arrangement contributed significantly to the successful delivery of project outputs.

On the other side, the project has been challenged by a number of factors that either slowed down progress or hindered the achievements of the project, these include:

- Delays in delivering hazard maps and assessments: The project experienced significant delays in delivering hazard maps and assessments, which were caused by several factors. One of the primary reasons was the failure of the initial consulting firm to deliver quality work on time. As a result, the project had to terminate the firm's contract and shift to a new contracting approach by engaging around eight individual consultants with different areas of expertise. This change in contracting modality, while necessary, led to additional delays, as the procurement process for hiring multiple individual consultants proved to be time-consuming and resource intensive. The impact of this delay was substantial, particularly given the interdependencies with other components of the GCF and SIDA projects. Due to the delayed delivery of hazard maps and assessments, the GCF and SIDA components were unable to conduct vulnerability assessments, which are crucial for identifying and prioritizing the most vulnerable communities. Consequently, this delay hindered decision-making on where to implement adaptation measures, stalling progress on key project activities and reducing the overall effectiveness of the interrelated components.
- The quality of data available for hazard mapping and assessments presented several challenges, as certain data categories or location-specific information were either incomplete or unavailable. These gaps in the data limited the comprehensiveness of the hazard maps and assessments. The absence of crucial data for specific areas meant that the project had to rely on extrapolation or assumptions in some cases, including the application AI tools to generate data for future forecasting. This issue underlines the need for improved data collection systems and infrastructure, as well as better coordination among relevant agencies to ensure that comprehensive and accurate datasets are available for future risk assessments and hazard mapping efforts. Addressing these data gaps will be essential for enhancing the effectiveness of climate adaptation and disaster risk reduction strategies.
- The absence of accurate and up-to-date satellite images posed a significant technical barrier to the development of hazard mapping and assessments. Satellite imagery is crucial for providing precise and current data on terrain, land use, and environmental changes, which are essential for creating reliable hazard maps. However, the high cost of acquiring these images exceeded the project's financial capacity, limiting access to this critical resource.
- A key challenge faced by the project has been the limited human resources available within key agencies, particularly the NEA. The number of NEA technical staff actively engaged in hazard mapping and assessment is very limited. Moreover, many of these staff members are not fully dedicated to this type of work; instead, hazard mapping and assessments are additional tasks layered on top of their regular duties. This dual responsibility has made it difficult for NEA staff to participate in project activities effectively and in a timely manner. As a result, the capacity of NEA to contribute meaningfully to the project has been constrained, impacting the overall progress of hazard mapping and assessment tasks. In response, NEA has recently engaged around 15 fresh graduates as interns ended up in recruiting 4 of them permanently in NEA structures.
- Difficulty in finding specialised expertise in the field of hazard mapping and assessment particularly locally in Georgia.
- The project encountered significant **difficulty in finding specialized expertise** in the field of hazard mapping and assessment, particularly within Georgia. This shortage of local experts with the necessary technical skills and experience has been a persistent challenge, affecting the pace of the project implementation. The limited availability of such expertise locally has often necessitated the hiring of international consultants or individual specialists from outside the country, which can lead to delays, higher costs, and difficulties in ensuring sustained capacity building.
- The project has also faced challenges due to **limited political will to reform institutional and regulatory settings related to hazard mapping, assessment and management** in Georgia. Despite the critical need for effective disaster risk reduction and hazard management frameworks, there has been insufficient recognition of this issue as a top priority at the political level. This lack of urgency has slowed the progress of necessary reforms, such as defining institutional accountability, developing regulations for hazard mapping, and

- implementing comprehensive risk management strategies. Without strong political commitment, the project's efforts to create lasting change in hazard management remain constrained. Building a broader consensus around the importance of disaster preparedness and ensuring that it is prioritized within national policy frameworks will be crucial for overcoming this barrier.
 - The COVID-19 pandemic and related restrictions significantly limited opportunities for direct, in-person engagement with stakeholders, which impacted the project's ability to foster deeper collaboration. As a result, the project shifted to using online engagement modalities to maintain communication and continue project activities. While the use of virtual platforms allowed the project to progress, it posed challenges, such as reduced effectiveness in building relationships, limited accessibility for some stakeholders due to technological barriers, and difficulties in conducting hands-on training or fieldwork.
 - The project has faced challenges with **lengthy and sometimes complex procurement processes**. These issues have led to delays in securing necessary goods and services, further complicating the timely implementation of project activities. The project entails procuring relatively large number of consultants, and this has been particularly challenging for the project team. The procurement difficulties underline the need for improved supplier engagement and capacity-building efforts to align local providers with the required standards.

The Government of Georgia has recently introduced a draft law aimed at managing foreign funds, which includes limitations on the engagement of NGOs and civil society organizations. While this legislation did not affect the project delivery in the current phase, if the law is approved, it could significantly hinder the project's ability to collaborate with local NGOs, particularly those in the scientific community who play a critical role in hazard mapping, risk assessments, and climate adaptation efforts. Such restrictions could limit access to valuable expertise and local knowledge, which are essential for the successful implementation of the project's activities. Moving forward, it will be important for the project to monitor developments around this legislation closely and explore alternative strategies for engaging key stakeholders, ensuring that critical partnerships with civil society organizations are maintained wherever possible. Additionally, advocacy efforts to highlight the importance of NGO participation in climate resilience and hazard management may be necessary to mitigate potential impacts of the law.

Gender mainstreaming

Findings

The project has made progress in integrating gender considerations into its activities, ensuring an inclusive approach to climate-induced hazard management. Key efforts include the creation of a Gender Action Plan for an Inclusive MHEWS that outlines recommendations for engaging vulnerable groups such as women, Internally Displaced Persons (IDPs), people with disabilities, and ethnic minorities in planning and preparedness efforts. Gender experts actively participated in the project's implementation, conducting gender sensitivity testing for key deliverables, ensuring gender perspectives were incorporated early in the process. Gender-disaggregated data collection has allowed the project to track the participation of men and women, informing gender-responsive decision-making and enhancing inclusivity in emergency response strategies.

As assessed in the coherence section of this report, the project design integrates gender considerations across all project activities, indicators, and targets, this includes incorporating gender perspectives into the national policy framework as well as local initiatives related to multi-hazard risk profiling, vulnerability assessments, and risk-informed preparedness and response planning.

During the implementation stage, a GCF program-level gender team has been mainstreaming gender in different ways, including

- The project made significant efforts to promote inclusive participation in its activities by drafting a roadmap for the development of an Inclusive Multi-Hazard Early Warning System (MHEWS) in Georgia. This roadmap includes a recommendation manual designed to address the diverse needs of vulnerable groups, such as women, Internally Displaced Persons (IDPs), people living below the poverty line, people with disabilities, ethnic minorities, and children. The roadmap provides practical guidance for project teams on how to ensure inclusivity throughout the stakeholder engagement process for MHEWS. It outlines specific recommendations for engaging marginalized groups, ensuring that their voices are heard, and their needs are considered in the planning and implementation of early warning systems. This inclusive approach is vital for creating a MHEWS that is accessible and effective for all segments of the population, particularly those who are most vulnerable to climate and disaster risks.
- The project's gender experts have played an active role in ensuring that gender considerations are appropriately integrated into key deliverables by conducting gender sensitivity testing. This process involves engaging gender experts during the formulation process of these deliverables, allowing for early input and guidance on how to incorporate gender perspectives effectively. Through this approach, the gender experts provide recommendations on how to strengthen gender mainstreaming across project outputs. This ensures that gender-related issues are not only considered but are woven into the fabric of the project's activities and outcomes, promoting inclusivity and addressing the unique needs and vulnerabilities of women and girls in the context of climate change and disaster risk management. This process has enhanced the project's ability to produce gender-responsive deliverables that align with its broader objectives of building resilience and supporting equitable adaptation strategies. See below table for details on each deliverable.
- Data collection, particularly in relation to beneficiary participation in the project, has been conducted in a
 gender-disaggregated manner. This approach allows for the tracking and monitoring of the involvement
 of both men and women, ensuring that the project can assess its impact on different gender groups. This
 helps the project to better understand gender-specific trends, challenges, and opportunities, which
 enables more informed decision-making regarding gender inclusivity.
- The Emergency Management Plans developed by the project have specifically addressed the needs of the most vulnerable groups, including women, elderly individuals, and people with disabilities. These plans incorporate tailored measures to ensure that these groups are protected and supported during emergencies, recognizing their unique vulnerabilities. By including targeted actions such as accessible evacuation procedures, communication strategies that account for varying needs, and designated support services, the response plans ensure that vulnerable populations receive the necessary care and attention during crisis situations. This inclusive approach enhances the overall effectiveness of the preparedness and response measures, making sure that no group is left behind during emergencies and that all individuals have the resources and support required to mitigate risks and recover effectively.

While gender mainstreaming has been a critical component of managing climate-induced hazards, it is important to recognize that future phases of the project, particularly in Phase II, should broaden its inclusivity strategy. This expanded approach should specifically consider the unique needs of other vulnerable groups, such as people with disabilities, internally displaced people (IDPs), children, and ethnic minorities. These groups face distinct challenges and vulnerabilities during emergencies and must be acknowledged and incorporated into preparedness and response planning. By broadening the inclusivity strategy, the project can ensure that the specific needs of these groups are addressed in risk assessments, emergency plans, and policy frameworks. This holistic approach will create a more comprehensive and equitable disaster risk management system, enhancing the resilience of all segments of society in the face of climate-induced hazards.

Table 7: the outcome of testing gender responsiveness in key deliverables

Relevant indicator	Deliverable	The outcome of gender responsiveness testing
Indicator 1.1: number of norms, policies and political processes developed in multi-hazard hydro-meteorological risk monitoring, modelling, and forecasting fields Indicator 1.2: number of gender considerations reflected in newly developed policy documents and technical guidance	Roadmap of for developing the legal framework for hazard mapping and zoning policy	The development process of the Roadman is still ongoing.
Indicator 1.3.1 number of gender sensitive capacity development plans put in place to enhance the knowledge on nation-wide multi-hazard mapping and risk assessment among the target stakeholders	Capacity Development Plan to enhance the knowledge on nation-wide multi-hazard mapping and risk assessment among the target stakeholders	The recommendations have been incorporated into the document to a significant extent. Key recommendation related to integrating gender into the training modules, gender considerations in policy-making, particularly in the areas of hazard mapping, zoning, and ongoing assessments and adjustments to ensure that gender responsiveness remains a central aspect of disaster risk management strategies The document includes a focus on gender mainstreaming, particularly within the Multi-Hazard Early Warning System (MHEWS) and other related processes. Gender considerations have been recognized as important in disaster risk management (DRM), and efforts have been made to incorporate gender-sensitive approaches in planning and implementation.
Indicator 1.2.2 number of gender sensitive SoPs and guidance documents for multihazard risk assessment and EWS	Standard Operating Procedures (SOPs): for the hydrometeorological observing network in Georgia, ensuring its sustainable and efficient operation, maintenance, and the collection of high-quality observational data, accompanied by relevant training for NEA observers.	The document actively reflects all recommendations suggested by the gender advisors. Due to the highly technical nature of the document, the gender advisor decided to add the following recommendations: - The use of gender-Neutral Language - Inclusivity in Definitions: The document should define roles and responsibilities without making gendered assumptions,

		- Equal Access to Resources and Training:
Indicator 1.2.2 number of gender sensitive SoPs and guidance documents for multihazard risk assessment and EWS	SOP, along with communication protocols and Codes of Conduct, was created for agencies involved in the Multi-Hazard Early Warning System (MHEWS) and response	The development of communication protocols for early warning systems is ongoing – it is expected to have early warning protocols by the end of this year
Indicator 2.2.2 number of gender sensitive municipal multi-hazard preparedness and response plans for major river basins in Georgia	11 Municipal multi-hazard preparedness and response plans	As an addition and due to the highly technical nature of the document, the gender advisors decided not to include gender and vulnerable group-focused recommendations directly in the plan. Instead, they created a separate document that compiles those recommendations.
Indicator 2.2.1 number of standardized methodologies and SoPs for multi-hazard risk-informed, preparedness and response plans developed considering gender and vulnerable groups	Updated methods for emergency management planning	Due to the highly technical nature of the document, the gender advisors decided not to include gender and vulnerable groupfocused recommendations directly in the plan. Instead, they created a separate document that compiles those recommendations.

4.4 Efficiency

Findings

The integration of the SDC project with the GCF and SIDA initiatives has significantly enhanced efficiency and resource utilization, enabling the projects to achieve greater outcomes with limited resources. By sharing key human resources within the PMU, such as the procurement officer and gender specialist, the projects have reduced redundancies and administrative overhead, allowing for more effective allocation of resources.

By June 2024, 94% of the SDC funding had been utilized, leaving a remaining balance of US\$ 281,519.88, which is expected to be fully spent by the project's closing in September 2024. The SDC project serves as a co-financing contribution to the larger GCF program, which has secured a total of US\$ 30,707,797 of its committed US\$ from government parallel funding.

The project experienced delays in delivering key activities, particularly hazard maps, led to two extensions: a six-month extension to May 2024 and a subsequent 4.5-month extension to the end of September 2024. These extensions were deemed necessary and reasonable. The delays were primarily caused by challenges in recruitment and procurement, especially for key roles such as the CTA and specialized consultants for hazard mapping.

The Programme Steering Committee (PSC) has been functioning as the project's collective decision-making body. By meeting regularly twice per year since February 2019 (except in 2020 due to the COVID-19 pandemic), the PSC has been responsible for approving work plans, budgets, and addressing major challenges in project implementation. However, a review of the PSC documentation revealed that discussions have been primarily operational and budgetary in focus, leaving limited room for addressing long-term strategic issues such as the governance, and institutional ownership necessary for the project's enduring impact.

The PMU faced operational challenges due to staff turnover, notably the prolonged vacancy of the SDC Admin and Finance Officer, which likely strained administrative efficiency. While coordination at the program level has been strong, the absence of a CTA early in the project delayed critical technical oversight, though the later recruitment of a CTA improved the quality of technical supervision.

The project design includes a standard UNDP M&E plan. The project has consistently submitted semi-annual and annual progress reports, and a Mid-term Evaluation (MTE) conducted in late 2021 provided 13 recommendations, which have largely been implemented, and progress is actively tracked by UNDP. Additionally, the project adhered to a detailed risk management process, maintaining a regularly updated risk log to address emerging challenges. Although no specific audit was required for the project, a 2022 UNDP Country Office audit rated the office as fully satisfactory. This TE is occurring during the transition from phase I to phase II, and while it may have benefited from an earlier timeline, it is still essential for informing future project phases.

- 1398 Efficiency is a measure of how economically resources/inputs (funds, expertise, time, etc.) are converted into results.
- The integration of the SDC project into a larger program, alongside the GCF and SIDA projects, has allowed these initiatives to leverage each other efficiently, resulting in greater outcomes with limited resources. This collaboration has enhanced efficiency by enabling the projects to share resources and expertise. One of the key advantages of this integration is the sharing of key human resources within the PMU, such as the procurement

officer, gender specialist, and other essential roles. By pooling resources, the projects have not only maximized their impact but also achieved cost savings. This shared staffing model has reduced redundancies and administrative overhead, allowing for more streamlined project implementation. As a result, the projects have been able to allocate resources more effectively toward achieving their objectives, while maintaining a high level of coordination and synergy across all components.

In an effort to address existing capacity gaps, SDC has provided valuable support by offering technical expertise in the form of 'Technical Backstopping Experts.' These experts have played important role in ensuring quality assurance over highly technical outputs, such as hazard maps and risk assessments. Their contributions have been instrumental in maintaining the integrity and accuracy of these critical products. In addition, these experts facilitated study tours to Switzerland, providing opportunities for local teams to gain practical insights and knowledge from international best practices. Their support was especially significant during a period when the CTA position was vacant, ensuring that technical oversight and capacity building efforts continued without interruption.

The Project has been efficient in achieving outputs/products and in achieving outcomes and effects/impact in a high degree of accomplishment vis-à-vis expected target indicators and other metrics. Also, it has provided value-for-money since it achieved most of the results within budgets, agreed disbursement, etc., while leveraging investments and in-kind support from partners engaged in the project.

Finance and co-finance

In terms of financial resources, the total funding provided by SDC for the project amounts to US\$ 5,020,270, which includes 8% for indirect Programme Support Costs. By the end of Sep 2024, the project had utilized 96% of its total financial resources, leaving a remaining balance of US\$ 281,519. This remaining amount is expected to be spent by the project's final closing date at the end of October 2024. The high expenditure rate reflects the project's efficiency in managing its budget, ensuring that the majority of the financial resources have been directed toward achieving the planned outputs and outcomes. The remaining balance is expected to be allocated to the final project activities, ensuring full utilization of the available funds by the project's conclusion.

In terms of co-financing, contributions are planned and tracked at the program level rather than specifically for the SDC project. The SDC project itself is considered a co-financing contribution to the broader GCF program. The whole programme is expected to secure a total of US\$ 38,239,024 of cash and in-kind contributions from the government of Georgia, GCF US\$ 27,053,598, SIDA: US\$ 4,000,000 and UNDP US\$ 42,000. Based on the 2023 APR (GCF annual report), Since the project's initiation, the Government of Georgia (GoG) has been actively involved in co-financing and supporting project implementation. Since project implementation, GoG cumulative co-financing reached USD 30,707,797.98 out of committed USD 38,239,024 i.e 78% already secured.

These contributions collectively support the integrated efforts across the program, leveraging resources from multiple partners to ensure the comprehensive achievement of the program's objectives. The SDC project, as part of this broader initiative, plays a crucial role in contributing to the program's overall financing strategy and resource mobilization.

Table 8: project expenditures overview – until Sep 2024

Outputs	Expenditures	Total	Total	Delivery	Polonco
Outputs	Experiurtures	Ехр	budget	rate	Dalatice

	2018	2019	2020	2021	2022	2023	2024				
Output 1.1	-	70,920	51,429	1,071,751	80,840	-		1,274,990	1,274,940	100%	61,950
Output 1.2	-	-	86,438	46,851	513	40,554	52,170	230,699	250,000	110%	-20,699
Output 1.3	-	15,639	48,503	76,217	47,209	79,996	25,380	286,836	361,213	79%	74,377
Output 2.1	-	158,477	196,358	256,712	659,240	517,700	79,999	1,855,995	1,928,830	94%	112,834
Output 2.2.	-	-	25,594	35,702	155,285	94,641	10,123	322,099	322,700	100%	601
PM and M&E	25	77,568	75,737	91,690	104,767	86,833	56,242	493,740	510,715	97%	16,975
GMS	2	25,377	38,565	126,422	84,249	65,136	17,906	339,751	371,872	91%	35,481
Grand total	27	347,981	522,625	1,705,345	1,132,103	884,860	241,820	4,834,760	5,020,270	96%	281,519

In terms of the project financial management, the UNDP reviews the expenditures and closely monitor the expenditures according to the plans and in accordance with UNDP rules and procedures.

Regarding the timeframe, the project commenced in December 2018 and was originally scheduled to conclude in November 2023. However, due to delays in delivering key activities, particularly the hazard maps, the project underwent two extensions. The first extension extended the project by six months, pushing the closure to May 2024. A second extension of 4.5 months was then granted, moving the final closing date to the end of September 2024, in total, the project timeframe was extended for 10.5 months. The TE assesses these extensions to be necessary, justified and reasonable to ensure that all planned outputs, particularly those related to hazard mapping, could be fully completed and implemented, ensuring the project achieves its intended objectives. Despite these delays, the extensions have allowed the project to stay on track toward delivering high-quality results.

The project experienced substantial delays in recruitment and procurement processes, particularly for critical positions such as the Chief Technical Advisor (CTA) and the hiring of highly specialized individual consultants to carry out hazard methodology development and hazard mapping. Several factors contributed to these delays including that RFPs and TORs were not sufficiently developed to attract specialist companies, and the budget allocated for the project, which was planned several years ago, was not sufficient to attract well-established, highly specialized companies. Further, the recruitment of the CTA was particularly delayed due to the need to comply with UNDP rules and regulations, which added complexity to the process. Moreover, the requirement for the CTA to be based in Georgia to ensure effective involvement in project implementation further prolonged the recruitment timeline. These delays had a cascading effect on the project's overall progress, and were main reasons for seeking project extensions.

Project Management

The project was implemented under UNDP's National Implementation Modality (NIM), with the Ministry of Environmental Protection and Agriculture (MEPA) designated as the Implementing Partner (IP). In this arrangement, UNDP took on the role of providing quality assurance and oversight through its Country Office, ensuring that project activities were carried out in alignment with the set objectives and standards. MEPA was responsible for the overall execution of the project, working closely with UNDP to ensure the successful implementation of all planned activities. The ministry was accountable to UNDP for managing the project,

- 1469 including overseeing the monitoring and evaluation of interventions, ensuring the achievement of project
- 1470 outcomes, and effectively utilizing the resources provided by UNDP.
- 1471 The Programme Steering Committee (PSC), also referred to as the Project Steering Committee (PSC), was
- 1472 established in 2019 at the program level, encompassing the GCF, SIDA, and SDC projects. The PSC has been
- 1473 instrumental in providing strategic guidance to the project team and has served as the executive decision-making
- 1474 body for the project. Its role is to ensure that the project remains aligned with its objectives and is effectively
- 1475 implemented.
- 1476 The PSC is composed of key stakeholders, including representatives from the Ministry of Environmental Protection
- 1477 and Agriculture (MEPA), the National Environmental Agency (NEA), the Environmental Information and Education
- 1478 Centre (EIEC), the Emergency Management Service (EMS), the Ministry of Regional Development and
- 1479 Infrastructure (MRDI), UNDP, SIDA, SDC, as well as representatives from local governments and civil society
- 1480 organizations.
- 1481 As a collective decision-making body, the PSC has been responsible for making management decisions by
- 1482 consensus. This inclusive structure ensures that all relevant stakeholders have a voice in the strategic direction of
- 1483 the project, contributing to better coordination, accountability, and alignment with the needs of different sectors
- 1484 and regions involved in disaster risk reduction and climate resilience efforts.
- 1485 The PSC/PSC first convened in February 2019 and has since met regularly twice per year, with the exception of
- 1486 2020, when only one meeting was held due to challenges likely related to the COVID-19 pandemic. During these
- 1487 meetings, the PSC has played a critical role in making key decisions related to the approval of work plans and
- 1488 budgets, while also offering guidance to address and troubleshoot major issues and challenges that arose during
- 1489 project implementation.
- 1490 However, a review of the PSC documentation conducted as part of the TE revealed that discussions have primarily
- 1491 focused on operational and budgetary aspects. There has been limited room for addressing more strategic issues,
- 1492 particularly those related to the long-term governance structures and sustainability of the project's outputs, such
- 1493 as the use and maintenance of hazard maps. There is a need to place greater emphasis on strategic planning,
- 1494 ensuring that critical discussions around sustainability, institutional ownership, and governance structures are
- 1495 prioritized to secure the enduring impact of the project's products.
- 1496 The PMU was established in Tbilisi at the beginning of the Programme to manage the GCF, SIDA and SDC projects;
- 1497 it is located outside UNDP and MoPEA premises. It provides project administration, management, and technical
- 1498 support as required by the needs of the day-to-day operations of the SDC project. The team includes 8 staff
- 1499 members as follows: a GCF project coordinator (GCF-PC), SDC Project Manager (PM), SIDA Project Manager (SIDA-
- 1500 PM), an Admin/Finance Associate, a monitoring and evaluation officer (M&E Office), procurement and contracting
- 1501 assistant (GCF) and admin/fin assistant (SIDA) and two team leaders for GCF components.
- 1502 The PMU has experienced staff turnover, which affected its operations, particularly with the loss of the SDC Admin
- 1503 and Finance Officer. The recruitment process to fill this critical position has been notably prolonged, and as of this
- 1504 moment, the backfilling of the role has not yet been completed. This delay in recruitment has likely added strain
- 1505 on the remaining team members, potentially impacting the efficiency of administrative and financial management
- 1506 within the SDC project.

- 1507 Coordination at the program level appears to have been effective, largely due to the fact that all three projects
- 1508 (GCF, SIDA, and SDC) are housed within the same PMU, sharing the same office space. This co-location has
- 1509 facilitated daily coordination and collaboration among the staff, ensuring smoother communication, better
- 1510 resource allocation, and a more integrated approach to managing the program's activities. This setup has been
- 1511 key in ensuring alignment and efficiency across the different components of the broader program.
- 1512 The absence of a CTA at the start of the project significantly limited the technical input and oversight of key
- deliverables, affecting the quality and guidance of project activities during the initial phases. However, this gap
- 1514 was later addressed with the recruitment of a CTA, which helped to strengthen the technical supervision of the
- 1515 project.
- 1516 *Monitoring and evaluation (M&E)*
- 1517 <u>M&E design</u>: The project design includes standard UNDP Monitoring and Evaluation (M&E) plan according to
- 1518 UNDP's programming policies and procedures. The plan covers the monitoring side including tracking progress,
- interim Project Reports (IPRs), monitor and managing risks, running the steering group meetings, annual project
- quality assurance and reporting to the donor, and applying adaptive management measures based on the
- monitoring outcomes. On the evaluation side, it outlines a budgeted Mid-term Evaluation and a terminal
- evaluation, and reasonably (given the scale of the project) a budget of \$60,000 allocated for evaluation
- 1523 representing about 1.2% of the SDC grant, however, the monitoring activities were not costed.

1524 **M&E implementation**

- 1525 The project has consistently submitted its semi-annual (typically in July) and annual progress reports to the PSC
- 1526 (typically in Q1 of the new year), utilizing the template provided by SDC for progress reporting. These reports
- provide a comprehensive overview of the project's progress, including a summary of implementation progress by
- outcome, performance against the outputs as outlined in the yearly operational plan, and achievements against
- the overall targets identified in the project budget and financial summary.
- 1530 The reports also detail the progress of the implementation process, assess progress against the Logical
- 1531 Framework, and capture lessons learned throughout the project. In total, the project has submitted 9 reports to
- date: 1 in 2019, 2 in 2020, 2 in 2021, 2 in 2022, and 2 in 2023. No reports have been submitted in 2024 thus far,
- but the TE team has learned that a final progress report is currently being prepared concurrently with the TE
- process. These reports have been critical in providing updates to the PSC and ensuring ongoing transparency and
- accountability in project implementation.
- Progress data against the **18 results indicators** outlined in the project's logical framework has been regularly
- 1537 collected and analysed to assess the project's performance in achieving its agreed outputs as part of the reporting
- 1538 process. This systematic tracking has enabled the project team to monitor progress, identify gaps, and adjust
- strategies as needed to stay aligned with the expected outcomes.
- 1540 The **PSC** first convened in February 2019 and has since met regularly twice per year, with the exception of 2020,
- when only one meeting was held due to challenges likely related to the COVID-19 pandemic. During these
- meetings, the PSC has played a critical role in making key decisions related to the approval of work plans and
- 1543 budgets, while also offering guidance to address and troubleshoot major issues and challenges that arose during
- 1544 project implementation

An **inception workshop** was organized in February 2019 in Tbilisi, bringing together more than 80 representatives from the government, academic institutions, donors, UN agencies, local governments, and the non-governmental sector. This workshop marked the formal initiation of the project and played a critical role in setting the stage for the intervention strategy on climate change adaptation, with a specific focus on hazard mapping and capacity development. During the inception phase, several analytical papers were developed, providing the country with essential baseline information. This information was crucial for creating an enabling environment to enhance disaster risk management capacities through improved hazard mapping capabilities. These analytical documents laid the groundwork for defining the project's strategic approach and ensuring that the interventions were aligned with national priorities. The Inception Report (IR) was subsequently submitted in April 2019, encapsulating the findings and outlining the roadmap for project implementation.

The project commissioned a **Mid-term Evaluation (MTE)** between September and December 2021, carried out by two independent consultants. The MTE provided a total of 13 recommendations focused on enhancing the effectiveness and sustainability of the project outcomes. These recommendations have been largely implemented, with UNDP actively tracking progress on their implementation. UNDP has ensured transparency by keeping these updates available on its public website, allowing stakeholders to monitor how the recommendations are being addressed ¹².

There was no requirement set for undertaking **audit** at the SDC project level, however, an overall UNDP Country office level audit has been undertaken by Office of Audit and Investigations (OAI) in 2022 in accordance with UNDP's audit policy. The audit issued an audit rating for the Office of fully satisfactory, which means "The assessed governance arrangements, risk management practices and controls were adequately established and functioning well. Issues identified by the audit, if any, are unlikely to affect the achievement of the objectives of the audited entity/area. The audit found that the Office was well managed with good governance processes and had established adequate controls in areas relating to financial management, human resource management and administrative services.

A detailed **risk log**, adhering to the UNDP Risk Log template, was prepared and diligently maintained by the Project team throughout the project's implementation. The identified risks, along with their overall risk ratings, were regularly reviewed to ensure that emerging challenges were promptly addressed. Updates and revisions to the risk log were made continuously, allowing for effective risk management and mitigation.

The Terminal Evaluation (TE) is being conducted concurrently with the transition from phase I to phase II of the project. During the TE interviews with the SDC, it was revealed that the phase II proposal has already been approved. This timing presents a challenge, as the TE could have had a more significant impact if it had been conducted at least three months prior to the closure of phase I. Such timing would have allowed for the lessons learned and insights gained during the evaluation to be effectively incorporated into the design and planning of phase II.

4.5 Sustainability

				gs
12	m	• II	n	g ç
			-	-

¹² Available here.

The governance structure for natural hazard management in Georgia remains underdeveloped, with unclear institutional responsibilities, limited interagency coordination, and a limited accountability framework. This has hampered the effective use of the project's deliverables, and combined with limited political will for policy reform, it has restricted the uptake of the project's outputs and slowed progress on long-term sustainability. Although a roadmap for legal reforms related to hazard mapping and zoning was developed, concrete policy frameworks to reform the legal and institutional structures have not yet been delivered.

Institutional sustainability also faces risks despite the project's success in building capacities within Georgia's MHEWS. Although key achievements, such as the development of six hazard-mapping methodologies, SOPs, and a Capacity Development Plan, are notable, ongoing concerns remain. NEA faces challenges with staff shortages and lack of formal approval for the hazard mapping methodologies, threatening the long-term functionality of these tools. At the local level, the limited capacity of municipalities to use hazard maps, compounded by financial constraints and unclear institutional accountability, has led to delays in approving and implementing Emergency Management Plans.

The development and maintenance of hazard maps and assessments in Georgia heavily depend on foreign funding, such as the contributions from SDC, SIDA, and GCF, with the Georgian government providing in-kind contributions. This reliance on external support poses a risk to the long-term sustainability of hazard mapping efforts, as fluctuations in donor funding could leave the country vulnerable.

The project's Capacity Development Plan, which outlines short, medium, and long-term activities, is critical for ensuring ongoing capacity building in hazard management. While some activities will be supported by GCF, the plan's full implementation requires an estimated \$1.5 million, with no clear funding sources or institutional oversight arrangements for its future execution.

At the local level, financial capacity among municipalities is generally weak, limiting their ability to implement Emergency Management Plans, procure necessary equipment, and execute emergency measures. This lack of financial resources hampers disaster risk reduction efforts, leaving local authorities unable to fully realize the project's objectives.

Institutional sustainability

The governance structure for natural hazard management in Georgia remains underdeveloped, marked by unclear institutional responsibilities, very limited interagency coordination and a lack of accountability framework, which has limited the effective use of the project's deliverables. This issue, combined with a limited political will to take effective policy changes in this area, has restricted the uptake of the project's outputs. These challenges have collectively impeded the project's ability to drive meaningful policy reforms and ensure the long-term sustainability of its outcomes. Although the project developed a roadmap for creating a legal framework for hazard mapping and zoning policy, it did not deliver specific policy frameworks aimed at reforming the existing legal and institutional structures related to natural hazard management. The roadmap identifies the laws and sub-laws that require amendment, but without concrete legal reforms in place, there is still a significant gap in institutionalizing hazard mapping and risk modelling methodologies.

A significant component of the institutional sustainability of the SDC project lies in the institutional and individual capacities required to maintain hazard maps and ensure that hazard assessments are continuously updated. The project made considerable progress in advancing capacities across various components of the Multi-Hazard Early Warning System (MHEWS), and it contributed to building the institutional capacity of Georgian authorities. Key achievements include the development of six methodologies for multi-hazard mapping and risk assessments, the

creation of two Standard Operating Procedures (SOPs), the provision of hydrometeorological monitoring equipment, and the formulation of a comprehensive Capacity Development Plan to address the technical and human resource needs of agencies involved in Georgia's Early Warning System (EWS).

However, several concerns and risks could impact the institutional sustainability of these outputs and outcomes:

- Despite the progress in capacity building, significant gaps remain in the ability of institutions to fully implement and regularly update hazard maps. Without continued training and resource investment, these gaps could hinder the long-term effectiveness of the hazard mapping and assessment functions.
- The national and local institutions' capacity to understand, apply and utilize the hazard maps and hazard tools are still very limited. As a result, the potential of these tools to enhance risk management and planning remains underutilized.
- The lack of public access to tailored risk information is also limiting the potential for their broader uptake and use. Without open access to these crucial tools, local communities, businesses, and other stakeholders are unable to fully understand the risks they face or incorporate this information into their own planning and decision-making processes.
- The NEA faces constraints in human resources in terms of number of qualified staff available for this kind of work, which raises concerns about its ability to continue the hazard mapping and assessment functions in the future. Insufficient staffing could limit the sustainability of project achievements.
- Although the project developed six methodologies for individual hazard modelling and mapping, they have not yet been formally approved by NEA. This lack of formal approval raises concerns about the implementation and long-term use of these methodologies.

At the local level, the project delivered 11 Emergency Management Plans; however, only 5 of these plans have been formally approved. The local self-government law¹³ mandates municipalities to develop procedure for ensuring safety and protection of populations and territory in emergency situations in municipalities, however, local municipalities are facing significant challenges in approving these plans, primarily due to unresolved issues around institutional accountability and financial agreements with the national government in Georgia. Without a clear understanding and agreement on which institutions are responsible for implementing actions identified in the plans and how financial resources will be allocated or supported, local authorities have been hesitant to formally endorse the plans.

- In addition to the challenges with formal approval, the capacity of local authorities to implement the Emergency Management Plans varies significantly from one municipality to another. Generally, municipalities have limited capacity both in terms of understanding and effectively using the hazard maps, and in securing the financial resources necessary to implement these plans. Many local governments also struggle with a lack of equipment, which significantly hampers their ability to respond promptly and adequately to emerging risks.
- Moreover, changes in political leadership within municipalities pose a risk to the continuity and sustained ownership of risk management efforts. Leadership shifts can disrupt the momentum of ongoing initiatives, as new officials may deprioritize or lack awareness of the Emergency Management Plans.
- The project provided recommendations and comments aimed at enhancing the existing methodologies and establishing SOPs for emergency planning, however, the proposed amendments have not yet been formally incorporated into the legislation. This presents a challenge in ensuring that the enhanced methodologies and SOPs

_

¹³ Organic Law of Georgia No 4087 of 22 July 2015.

- are formally recognized and integrated into the legal framework, which is essential for improving emergency
- management and risk planning processes at the national level.
- 1637 The newly introduced and controversial "Transparency of Foreign Influence" law in Georgi is expected to limit the
- 1638 future phases of this project, and indeed all other projects, to engage civil society organizations effectively in
- project implementation, as the law introduces limitations on civil society organisation to receive funding.
- 1640 Therefore, the future phases of this project need to explore all available avenues to engage civil society effectively.
- 1641 Financial sustainability
- Based on the current funding architecture, the development and maintenance of hazard maps and assessments
- 1643 in Georgia are primarily dependent on foreign funding, such as the contributions from SDC in this case. The
- 1644 Georgian government provides parallel financing through in-kind contributions, and additional support is drawn
- 1645 from other bilateral (such as SIDA) and multilateral donors (Such as GCF). This reliance on external funding creates
- a challenge for the long-term sustainability of hazard mapping efforts. Without a more stable, internally funded
- mechanism for maintaining and updating these tools, the country remains vulnerable to fluctuations in donor
- 1648 support.
- 1649 As established earlier in this report, capacity building in the area of hazard management should be an ongoing
- process to address the needs of the stakeholders. The project developed a Capacity Development Plan that defines
- capacity building activities over short, medium, and long-term periods. The plan is estimated to require \$1.5
- 1652 million to fully implement, although some activities will be funded by the GCF program but no funding sources
- have been identified for its future execution. Additionally, there are no clear institutional arrangements for
- overseeing the plan's implementation, which could jeopardize the continuity of capacity-building efforts and the
- long-term sustainability of the project's results.
- 1656 At the local level, the financial capacity of municipalities varies from one to another, but in general, they have
- limited financial resources to effectively support the implementation of Emergency Management Plans. Many
- 1658 municipalities struggle to allocate sufficient funding for disaster risk reduction activities, including the
- 1659 implementation of preparedness measures, procurement of necessary equipment, and execution of emergency
- 1660 response measures. This lack of financial resources undermines the ability of local authorities to fully implement
- 1661 the plans.

- Socio-economic and environmental sustainability
- 1663 Given the highly technical nature of the project activities, which are primarily focused on research and hazard
- mapping, the TE team does not foresee any significant socio-economic or environmental risks arising from the
- 1665 project's activities. The project's efforts have been geared toward improving disaster risk management and
- preparedness, and the technical outputs—such as the development of hazard maps and preparedness plans—are
- designed to enhance resilience and reduce vulnerabilities without causing adverse environmental or social
- 1668 impacts.
- 1669 The project is highly relevant to the needs of local communities, which have been suffering from both capital and
- 1670 human losses due to climate change-induced hazards. The development of Emergency Management Plans has
- involved effective and inclusive community participation, ensuring that the specific needs of the most vulnerable
- groups—such as women, children, people with disabilities, and others—are identified and addressed. This

inclusive approach has helped to make the plans more comprehensive and tailored to the realities faced by these communities.

However, the level of public awareness regarding hazard management remains limited. There is a clear need for more activities focused on educating the public about the risks associated with climate hazards and what actions to take during emergencies. Increasing public awareness through targeted outreach, training, and information campaigns will be critical to building resilience and ensuring communities are better prepared to respond to and mitigate the impacts of such hazards. Such awareness activities are expected to be covered by the boarder GCF program and SIDA activities.

The project activities are expected to enhance environmental sustainability in the long term, particularly when the hazard maps are effectively utilized to inform the implementation of climate adaptation measures. When used properly, the hazard maps will help guide infrastructure planning, land use management, and disaster preparedness measures, reducing the environmental impact of unmanaged development and fostering resilience to climate-induced hazards. This will ultimately contribute to the preservation of ecosystems, reduce resource degradation, and promote sustainable environmental practices across vulnerable areas. Ensuring the continued use and updating of these hazard maps is key to maximizing their long-term benefits for both environmental and community sustainability.

5. Conclusion

- Coherence and Relevance: The SDC project aligns with broader initiatives (SDC, GCF, SIDA), contributing critical
 outputs like hazard maps. However, unrealistic timelines and limited focus on practical decision-making
 hindered progress. The project is highly relevant to Georgia's climate risk management needs, addressing gaps
 in hazard mapping and aligning with national policies.
- Progress Towards Results: Significant technical deliverables, such as hazard maps and Emergency
 Management Plans, were produced, but the transition from outputs to outcomes has been limited due to
 underdeveloped governance structures. Key achievements include enhanced capacities through training and
 development of methodologies, though formal adoption remains a challenge.
- Effectiveness: The project has been moderately effective, delivering major outputs, but progress is slowed by weak governance structures, unclear institutional accountability, and regulatory gaps in hazard management. Delays were caused by recruitment issues, lack of expertise, and limited data availability.
- Gender Mainstreaming: The project successfully integrated gender considerations, including the development of a roadmap for an Inclusive MHEWS and gender-disaggregated data collection, promoting inclusivity and enhancing decision-making.
- Efficiency: Integration with GCF and SIDA projects improved resource utilization, reducing redundancies. By June 2024, 94% of SDC funding was used, with final activities expected to conclude by September 2024. Recruitment challenges caused delays but were necessary for delivering key outputs.
- Sustainability: Institutional sustainability is at risk despite progress in building capacities within Georgia's MHEWS. NEA faces staff shortages and lacks formal approval for hazard mapping methodologies, threatening long-term functionality.
- Municipalities have limited capacity to use hazard maps, with financial constraints and unclear accountability delaying the implementation of Emergency Management Plans. Weak financial capacity at the municipal level hampers the ability to implement disaster risk reduction efforts, hindering the achievement of project objectives.

6. Recommendations & Lessons

6.1 Recommendations

With phase II already approved, the recommendations provided by this TE are expected to play an important role during the inception phase of phase II. Although the opportunity to incorporate these recommendations into the design of phase II has passed, they will still be valuable in shaping the early stages of implementation. The TE insights can help refine strategies, address potential gaps, and strengthen project execution as it progresses over the next few years. By informing the inception phase, these recommendations will support a smoother transition and ensure that lessons learned from phase I contribute to the success of phase II.

- 1. Support to the GoG in reforming the institutional and legal settings for hazard mapping and assessments for improving preparedness, response, and recovery efforts, and for safeguarding lives and properties. This also should aim at enhancing the coordination among institutions involved in disaster management and promoting clear accountabilities framework. Georgia's current institutional structure for disaster risk reduction is fragmented, with several governmental bodies operating in silos. To address this issue, it is important to reform the institutional framework by establishing clear roles and responsibilities for various agencies. Similarly, legal reforms are essential to create an enabling environment for comprehensive hazard assessments. Currently, Georgia's legal framework for disaster risk reduction is not robust enough to support detailed and up-to-date hazard mapping. Introducing legal mandates that require regular hazard assessments, updated databases, and mandatory risk zoning is crucial. Such laws would ensure that all regions in Georgia have accurate and current data, which is critical for informed decision-making regarding land use, construction, and emergency planning. Responsibility: PMU of SDC project phase II.
- 2. Engage with private sector and establish effective public-private partnerships. The private sector, particularly companies involved in construction, insurance, and infrastructure development, has a vested interest in accurate hazard assessments. This requires identify key companies in construction, insurance, and infrastructure development for partnership opportunities, and engaging them in zoning policy development and emergency plans development. By creating a legal framework that encourages collaboration between the government and private entities, Georgia can foster effective adaptation to natural hazards, better resource sharing, improve access to advanced technologies, and facilitate data collection for hazard mapping. Responsibility: PMU of SDC project phase II/GCF program.
- 3. Explore opportunities for partnering with a leading Georgian academic institution to assist NEA in implementing the methods developed by this project and keeping the hazard maps and assessments up to date. Such a partnership would help NEA address its shortage of human resources while ensuring the sustainability of technical support for hazard mapping and risk assessment. Engaging academic institutions can provide NEA with access to specialized expertise, research capabilities, and ongoing collaboration to maintain and advance the methodologies, ensuring the long-term effectiveness of these critical tools. Responsibility: PMU of SDC project phase II.
 - 4. Support local municipalities in mainstreaming hazard maps into their land use and zoning plans by providing technical assistance, capacity building and expertise to review and update existing land use plans and associated regulations. This can be done by providing expert guidance to help municipalities incorporate hazard maps into land use and zoning regulations, trainings and conducting the review and revision of current land use plans to align with hazard assessments. This assistance would help municipalities integrate the data from hazard maps into planning processes, ensuring that development decisions are informed by risk assessments. By aligning land use plans with hazard mapping, municipalities can better manage disaster risks, reduce vulnerabilities, and enhance resilience to climate-induced hazards. Responsibility: EMS with support of the SDC/GCF program.

- 5. Showcase the work done on Emergency Management Plans to other municipalities to demonstrate success and encourage replication. Through its regular engagement with the municipalities, EMS is well-positioned to highlight the tangible benefits and successes achieved through the implementation of these plans, other municipalities can be inspired to adopt similar approaches. Organizing workshops, case studies, and peer-to-peer learning sessions will help share best practices, foster collaboration, and build momentum for broader uptake of preparedness and response strategies across the country. Responsibility: EMS.
- 6. NEA to formally endorse the project's key deliverables, such as the developed methodologies for hazard mapping and risk assessment, to ensure their long-term sustainability. Formal endorsement will institutionalize these methodologies, making them a part of NEA's official processes and increasing the likelihood of their continued use and application. This step is crucial for ensuring that the project's outputs are integrated into national systems and maintained over time. Responsibility: NEA. Responsibility: NEA.
- 7. Implement strong advocacy efforts targeting both public agencies and the private sector, particularly those involved in mega infrastructure projects, to ensure they acknowledge and integrate hazard maps into their planning and decision-making processes. By raising awareness about high-risk zones and the importance of using hazard maps, these stakeholders can better account for climate risks and natural hazards in their infrastructure projects, reducing potential vulnerabilities and enhancing overall resilience. Tailored workshops, briefings, and collaboration initiatives with these key actors can help embed risk-informed planning in large-scale development initiatives. Responsibility: PMU of SDC project phase II.
- 8. Develop and implement a comprehensive M&E framework specifically designed to measure the outcomes of capacity-building efforts. This framework should assess changes in skills, knowledge, and behaviours of the staff who receive training. By tracking these metrics, the framework will enable the project to quantify the impact of capacity-building activities and identify any remaining gaps or areas that require further attention. This approach will provide valuable insights into the effectiveness of training programs and help ensure that capacity-building initiatives are driving the desired improvements in performance and institutional capability. Responsibility: PMU of SDC project phase II/GCF program.

6.2 Lessons learned

In addition to those lessons learned captured earlier in this report (for example, see challenges and success factors under effectiveness section), the following are additional lessons learned synthesized through the evaluation process.

DRR requires not only a gender-responsive approach but an inclusive approach to address the most vulnerable. While gender mainstreaming has been a critical component of managing climate-induced hazards, it is important to recognize that future phases of the project, particularly in Phase II, should broaden its inclusivity strategy. This expanded approach should specifically consider the unique needs of other vulnerable groups, such as people with disabilities, internally displaced people (IDPs), children, and ethnic minorities. These groups face distinct challenges and vulnerabilities during emergencies and must be acknowledged and incorporated into preparedness and response planning. By broadening the inclusivity strategy, the project can ensure that the specific needs of these groups are addressed in risk assessments, emergency plans, and policy frameworks. This holistic approach will create a more comprehensive and equitable disaster risk management system, enhancing the resilience of all segments of society in the face of climate-induced hazards. Moreover, international frameworks like the Sendai Framework for Disaster Risk Reduction emphasize the importance of inclusivity, recognizing that disaster risk governance must be participatory. Governments and organizations are encouraged to work with all stakeholders, including civil society, to design more robust disaster preparedness and response strategies. By doing so, they can ensure that no one is left behind, thus contributing to more effective disaster mitigation and recovery.

- In complex programs such as this one, the interdependencies between projects should be carefully planned and managed to prevent cascading impacts from delays. Experience from this project shows how delays in hazard mapping and assessment impacted subsequent activities such as vulnerability assessments, selecting the most vulnerable communities, and implementing hazard reduction measures at the local level. A well-structured coordination mechanism should be in place to ensure that timelines, milestones, and dependencies across different components are clearly defined and monitored. This approach can help mitigate the risks of delays in one project affecting others. Regular communication, contingency planning, and flexibility in adapting to unforeseen circumstances are crucial to maintaining momentum and ensuring the successful implementation of interconnected projects.
- Legal, regulatory, and institutional reforms are the cornerstones of an enabled environment: The absence of specific policy frameworks to support hazard mapping and risk modelling underscores the critical need for advocating legal reforms that institutionalize disaster risk reduction (DRR) practices. While the development of roadmaps and recommendations for legal reform is a necessary first step, sustained engagement with policymakers is essential to ensure these reforms are implemented. Institutionalizing hazard mapping and risk assessments through comprehensive legal and regulatory frameworks will help create an environment where DRR becomes an integral part of national and local governance, ensuring long-term sustainability and resilience.
- The role of the private sector in Disaster Risk Reduction (DRR) is increasingly recognized as critical for minimizing the impacts of natural and man-made hazards. The private sector, including businesses, financial institutions, and industries, is an essential stakeholder in disaster resilience efforts due to its capacity to influence infrastructure, economic growth, and innovation. By proactively engaging in disaster preparedness and risk reduction, companies can minimize losses and ensure business continuity. For instance, adopting resilient infrastructure, diversifying supply chains, and creating contingency plans can help businesses remain operational during and after disasters. This not only protects the business itself but also contributes to broader community stability, as businesses provide jobs, goods, and services essential to recovery efforts. Collaboration between the private sector and government is another essential component of effective DRR. Public-private partnerships (PPPs) allow for the sharing of knowledge, expertise, and resources. For instance, governments can work with private companies to build and maintain resilient infrastructure or to develop disaster preparedness campaigns that reach vulnerable populations.
- Institutionalizing Technical Deliverables is important. For long-term sustainability, the endorsement and formal adoption of methodologies and hazard mapping standards by national agencies like NEA is crucial. This ensures that project outputs are integrated into institutional processes and not just treated as temporary tools.
- Critical capacity gaps at the local level persist: Despite efforts to develop hazard and risk information, many local authorities still face challenges in fully understanding and effectively using this information for planning and decision-making purposes. This limitation poses a significant barrier to enhancing the country's resilience to future climate-induced hazards and disasters. In Phase II of the CCA project, addressing these capacity gaps will be a priority. The focus will be on providing targeted capacity-building and technical support to local governments, ensuring they are equipped to integrate hazard and risk information into their land use, development planning, and emergency preparedness strategies, ultimately fostering greater resilience at the community level.
- The timing of a Terminal Evaluation (TE) is critical when transitioning from phase I to phase II of a project. Conducting the TE too late, such as after the approval of the phase II proposal, limits the opportunity to incorporate valuable lessons learned and recommendations into the design of the next phase. To maximize the impact of the evaluation, it is important to schedule the TE at least a few months prior to the closure of phase I. This allows sufficient time for the evaluation findings to inform both the design and planning of phase II, ensuring that adaptive improvements are integrated from the outset.

7. Annexes

1858

1859

1860

1861

1862

1863

1864

1865

1866

1867

1868

7.1 Annex 1: TE ToR (excluding ToR annexes)

TOR is provided separately.

7.2 Annex 2: Evaluation matrix and data collection instruments

Evaluation matrix is important to identifying the key evaluation questions and how they will be answered through the selected methods. The evaluation matrix is a tool that evaluators create as a map and reference in planning and conducting an evaluation. It also serves as a useful tool for summarising and visually presenting the evaluation design and methodology for discussions with stakeholders. It details evaluation questions that the evaluation will answer, data sources, data collection and analysis tools or methods appropriate for each data source, and the standard or measure by which each question will be evaluated.

Table 3: Evaluation Matrix

Evaluative Criteria Questions	Indicators/evidence	Sources	Methodology
Relevance: How does the proj	ect relate to the development priorities a the	local, regional and	d national level?
Is the project relevant for the main beneficiary? Are the expected results/outputs of the project consistent with the outcome, immediate impact and overall goal/impact (as part of the analysis of the log frame matrix/project	Stakeholders' perceptions on the relevance of PROJECT's activities to their needs Level of alignment of PROJECT's activities with key country priorities and stakeholders' plans Degree of coherence of the PROJECT design in terms of theory of change,	PROJECT documentation s national policies or strategies, PROJECT stakeholders	Desk review Stakeholders' interviews
theory? To what extent were	components, choice of partners, structure, delivery mechanism, scope, budget, use of resources, etc.	feedback	
perspectives of those who could affect the outcomes, and those who could contribute information or	Degree of alignment of the PROJECT activities with the UN Sustainable Development Cooperation Framework		
other resources to the attainment of stated results, taken into account during the project design	Degree to which the project design identifies and address gender and human rights issues		
processes?	Existence of gender actions plan		
To what extent does the project contribute to gender equality, the empowerment	Indicators SMARTness and appropriateness		

of women and the human	Degree to which suggested amendments		
rights-based approach?	to the PROJECT's targets are realistic and		
To what extent has the	justified.		
project been appropriately			
responsive to political, legal,			
economic, institutional, etc.,			
changes in the country?			
Effectiveness: To what extent	have the expected outcomes and objectives	of the project beer	n achieved?
To what extent has the	Delivery on project targets defined in the	PROJECT	Desk review
project already achieved its	PROJECT revised results framework	documentation	
outcome(s) or will be likely		s ()	· Stakeholders
to achieve it/them?	Output assessments		interviews
	Assessment of submitted and do not sittle the	Progress	
To what extent has the	Assessment of outputs' gender sensitivity	reports	
project already achieved its	Stakeholders' perspective on the	DDOJECT	
expected results/outputs?	outcomes/outputs delivery and	PROJECT	
In which areas does the	effectiveness	deliverables	
In which areas does the		PROJECT	
project have the greatest	Extent to which stakeholders patriation	stakeholders	
achievements? Why and what have been the	planned and implemented appropriately	feedback	
	and effectively	recuback	
supporting factors? How can the project build on or			
expand these			
achievements?			
acmevements:			
In which areas does the			
project have the fewest			
achievements? What have			
been the constraining			
factors and why? How can			
or could they be overcome?			
What, if any, alternative			
strategies would have been			
more effective in achieving			
the project's objectives?			
Are the projects objectives			
and outputs clear, practical			
and feasible within its			
frame?			
indine:			

To what extent have all			
project stakeholders			
collaborated as planned?			
To what extent was gender			
mainstreaming included in			
the project			
Efficiency: Was the project imp	plemented efficiently, in line with internation	al and national no	rms and
standards?	,		
To what extent was the	Effectiveness of the PROJECT coordination	PROJECT	Desk review
project management	and interlinkages	documentation	Deskreview
structure as outlined in the	and meerimages	S	Stakeholder
project document efficient	Stakeholders feedback on the	3	interviews
in generating the expected	effectiveness of the project management	· PSC MoM	
results?	, , ,		
results:	Frequency and effectiveness of the PSC in	· Progress	
To what extent have the	decision making and strategic guidance	reports	
UNDP project			
implementation strategy	Stakeholders feedback on the	PROJECT	
and execution been efficient	effectiveness of their participation	deliverables	
and cost-effective?	Number, and type, of engagements with	PROJECT	
	stakeholders	stakeholders	
To what extent has there	Stakenolders	feedback	
been an economical use of	Extent to which stakeholders are aware of	recuback	
financial and human	the project and its activities		
resources? Have resources	, ,		
(funds, human resources,	Documented adaptive management		
time, expertise, etc.) been	actions to accommodate the changing		
allocated strategically to	priorities		
achieve outcomes?	Estant to ordinal constant and constant		
To what extent have	Extent to which project targets are met		
resources been used	on time and on budget		
	Effectiveness of the M&E functions		
efficiently? Have activities			
supporting the strategy been cost-effective?	Evidence of adaptive management		
טפפוו נטגניפוופננועפן	actions where alternative strategies have		
T h	been identified and addressed		
To what extent have project	I .		
To what extent have project funds and activities been			
• •			

To what extent do the M&E	Stakeholders feedback on project		
systems utilized by UNDP	implementation strategies and		
ensure effective and	alternatives		
efficient project			
management?	Cost in view of results achieved compared		
	to costs of similar projects from other		
	organisations		
	Level of discrepancy between planned		
	and utilised financial expenditures		
	· Planned vs. actual funds leveraged		
	· Timeliness of activities delivery		
	Co-financing data and evidence		
	Existence, quality and use of M&E,		
	feedback and dissemination mechanism		
	to share findings, lessons learned and		
	recommendation.		
	Quality of M&E at the design stage and		
	Quality of Moc at the design stage and		
	throughout the implementation		
Sustainability: To what extent sustaining long-term project r	throughout the implementation are there financial, institutional, socio-politic	al, and/or environ	mental risks to
	throughout the implementation are there financial, institutional, socio-politic	al, and/or environ	mental risks to Desk review
sustaining long-term project r	throughout the implementation are there financial, institutional, socio-politic esults?		· Desk review
sustaining long-term project r Are there any social or	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from	PROJECT	· Desk review · Stakeholders'
sustaining long-term project r Are there any social or political risks that may	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from government or other stakeholder to	PROJECT documentation s	· Desk review
sustaining long-term project r Are there any social or political risks that may jeopardize sustainability of	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from government or other stakeholder to financially support relevant sectors of activities after PROJECT end	PROJECT documentation	· Desk review · Stakeholders'
Are there any social or political risks that may jeopardize sustainability of project outputs and the project's contributions to country programme outputs	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from government or other stakeholder to financially support relevant sectors of	PROJECT documentation s PSC MoM	· Desk review · Stakeholders'
Are there any social or political risks that may jeopardize sustainability of project outputs and the project's contributions to	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from government or other stakeholder to financially support relevant sectors of activities after PROJECT end Level of project stakeholders ownership	PROJECT documentation s PSC MoM Progress	· Desk review · Stakeholders'
Are there any social or political risks that may jeopardize sustainability of project outputs and the project's contributions to country programme outputs and outcomes?	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from government or other stakeholder to financially support relevant sectors of activities after PROJECT end Level of project stakeholders ownership Level of capacities at the country level to	PROJECT documentation s PSC MoM	· Desk review · Stakeholders'
Are there any social or political risks that may jeopardize sustainability of project outputs and the project's contributions to country programme outputs and outcomes? To what extent do	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from government or other stakeholder to financially support relevant sectors of activities after PROJECT end Level of project stakeholders ownership	PROJECT documentation s PSC MoM Progress	· Desk review · Stakeholders'
Are there any social or political risks that may jeopardize sustainability of project outputs and the project's contributions to country programme outputs and outcomes? To what extent do stakeholders support the	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from government or other stakeholder to financially support relevant sectors of activities after PROJECT end Level of project stakeholders ownership Level of capacities at the country level to	PROJECT documentation s PSC MoM Progress reports	· Desk review · Stakeholders'
Are there any social or political risks that may jeopardize sustainability of project outputs and the project's contributions to country programme outputs and outcomes? To what extent do stakeholders support the project's long-term	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from government or other stakeholder to financially support relevant sectors of activities after PROJECT end Level of project stakeholders ownership Level of capacities at the country level to continue delivering on the project results	PROJECT documentation s PSC MoM Progress reports PROJECT	· Desk review · Stakeholders'
Are there any social or political risks that may jeopardize sustainability of project outputs and the project's contributions to country programme outputs and outcomes? To what extent do stakeholders support the	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from government or other stakeholder to financially support relevant sectors of activities after PROJECT end Level of project stakeholders ownership Level of capacities at the country level to continue delivering on the project results Existence of financial and institutional settings to support long term benefits	PROJECT documentation s PSC MoM Progress reports PROJECT deliverables PROJECT	· Desk review · Stakeholders'
Are there any social or political risks that may jeopardize sustainability of project outputs and the project's contributions to country programme outputs and outcomes? To what extent do stakeholders support the project's long-term	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from government or other stakeholder to financially support relevant sectors of activities after PROJECT end Level of project stakeholders ownership Level of capacities at the country level to continue delivering on the project results Existence of financial and institutional settings to support long term benefits Likelihood of financial sustainability of the	PROJECT documentation s PSC MoM Progress reports PROJECT deliverables PROJECT stakeholders	· Desk review · Stakeholders
Are there any social or political risks that may jeopardize sustainability of project outputs and the project's contributions to country programme outputs and outcomes? To what extent do stakeholders support the project's long-term	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from government or other stakeholder to financially support relevant sectors of activities after PROJECT end Level of project stakeholders ownership Level of capacities at the country level to continue delivering on the project results Existence of financial and institutional settings to support long term benefits	PROJECT documentation s PSC MoM Progress reports PROJECT deliverables PROJECT	· Desk review · Stakeholders
Are there any social or political risks that may jeopardize sustainability of project outputs and the project's contributions to country programme outputs and outcomes? To what extent do stakeholders support the project's long-term	throughout the implementation are there financial, institutional, socio-politic esults? Evidence of commitments from government or other stakeholder to financially support relevant sectors of activities after PROJECT end Level of project stakeholders ownership Level of capacities at the country level to continue delivering on the project results Existence of financial and institutional settings to support long term benefits Likelihood of financial sustainability of the	PROJECT documentation s PSC MoM Progress reports PROJECT deliverables PROJECT stakeholders	· Desk review · Stakeholders

		I	I
	Identification of emerging risks		
	Risk log updates		
	Exit strategy in place and actively		
	operationalisation		
	Stakeholders feedback on the upscaling		
	and replication potential		
	Stakeholders feedback on unintended		
	results		
	Stakeholders feedback pm the		
	transformative changes		
	Evidence of transformative change		
	attributed to the PROJECT		
Cross-cutting issues and gender equality and women's	der equality and women's empowerment: Fempowerment?	low did the proje	ct contribute to
· To what extent have gender	Extent to which programme products are	PROJECT	· Desk review
equality and the	sensitive to gender	documentation	· Stakeholders'
empowerment of women been addressed in the	Extent to which project data are sex-	S	interviews
design, implementation and	disaggregated	PROJECT	
monitoring of the project?	Existence of logical linkages between	reports	
	gender results and project outcomes and	PROJECT	
 Is the gender marker assigned to this project 	impacts	stakeholders	
representative of reality?	Existence of gender marker	feedback	
• To what extent has the project promoted positive changes in gender equality and the empowerment of women? Did any unintended effects emerge for women,	Extent to which have poor, indigenous and physically challenged, women, men and other disadvantaged and marginalised groups benefited from the PROJECT		
men or vulnerable groups?	The TE will investigate the extent to which human rights-based principles have been		
To what extent have poor, indigenous and physically	recognised by the project design and delivery.		
challenged, women, men			
and other disadvantaged and marginalized groups			
and marginalized groups			

benefited from the work of UNDP in the country?			
 Disability Were persons with disabilities consulted and meaningfully involved in programme planning and implementation? What proportion of the beneficiaries of a programme were persons with disabilities? What barriers did persons with disabilities face? Was a twin-track approach adopted? 	Evidence of consultation with PwDs % of PwDs from the beneficiaries (if data is disaggregated) Degree to which project products address the needs of the PwDs as needed	PROJECT documentation s PROJECT reports PROJECT stakeholders feedback	· Desk review · Stakeholders' interviews

7.3 Annex 3: List of individuals or groups interviewed or consulted.

#	Name	Organization	Position	
1.	Salome Lomadze	UNDP	SDC, Project Manager	
2	Timoteo Ferreira	UNDP	Program CTA	
3.	Nina Shatberashvili	Caucasus Network for Sustainable Development of Mountain Regions (Sustainable Caucasus)- NGO	Executive director	
4	Irakli Jeiranashvili	National	Head of International Relations Department	
5	loseb Kinkladze	Environmental Agency(Focus-GroupDiscussion)	Deputy Head of Hydrometeorological department	
6	Irakli Megrelidze	Discussion	Deputy Head of HydroMeteorological Service of Georgia, Hydrometeorological department	
7	Giorgi Gaprindashvili		Head of Engineering and hydrometeorological division, Geology department	
8	Otar Kurtsikidze		Head of Response of Geo-ecological Complication Division at Department of Geology, Geology Department	
9.	Tornike Phulariani	UNDP	SIDA, Project Manager	
10	Nikola Bardacova	UNDP	Project gender advisor	
11.	Temur Melkadze	Emergency	Head of civil protection department	
12	Saba Karchava	Management Service (Group Interview)	Deputy Head of international department	
13	Ketevan Mchedlidze	Gori Municipality	Servant in Juridical department	
14	Natia Mdinaradze		Head of Public Relations department	
15	Aleksandre Tarkhnishvili		Head of Administrative and Procurement department	
16	David Chikhradze		Servant in Social and helth security department	
17	Rusudan Kakhishvili	National Crisis Management Center	Head of Crisis Management Coordination Center	
18	Archil Asatiani	(Department) of the	Senior advisor	
19	Nino Machavariani	National Security Council's Office (Group Interview)	Senior Advisor	
20	Zurab Javakhishvili	Ilia State University	Professor, Dean of Earth Sciences Departmen	
21	Eliso Barnovi		GCF, Project Manager	
22	Keti Skhireli	UNDP (Group Interview)	GCF, Project Coordinator	
23	Vasil Gedevanishvili	National	Head of National Environmental Agency	
24	Tamar Sharashidze	Environmental Agency (Group Interview)	Deputy Head of National Environmental Agency	
25	Nino Antadze	UNDP (Group	EE Portfolio Team leader	
26	Davit Samunashvili	Interview)	EE Portfolio Associate	
27	Tamar Tsivtsivadze	SDC (Group Interview)	Head of Program in Georgia Effective Democratic Institutions, Human Safety and Security Domain	

Terminal Evaluation	of 'Strengthening	the Climate Adaptation	Capacities in Georgia' Project
---------------------	-------------------	------------------------	--------------------------------

7.4 Annex 4: List of supporting documents reviewed. 1873 1874 List of documents that have been reviewed includes, but not limited to: 1875 All technical deliverables 1876 Up to date status of ALL indicators/targets (latest available report is Dec 2023) 1877 Up to date status of ALL outputs 1878 Mid-term evaluation report and management response plan 1879 Final Project Document with all annexes 1880 UNDP Social and Environmental Screening Procedure (SESP) and associated management plans (if any) 1881 Progress reports (quarterly, semi-annual or annual, with associated work plans and financial reports) 1882 Workshops reports 1883 Minutes of Programme Steering Committee Meetings and of other meetings (i.e., Project Steering 1884 Committee meetings, Head of Agencies Meeting) 1885 Financial data, including actual expenditures by project outcome, including management costs, and 1886 including documentation of any significant budget revisions 1887 Co-financing data with expected and actual contributions broken down by type of co-financing, source, 1888 and whether the contribution is considered as investment mobilised or recurring expenditures 1889 Gender action plan 1890 **LOAs** 1891 Audit reports (if any) and management responses 1892 Electronic copies of project outputs (booklets, manuals, technical reports, articles, etc.) 1893 Project communications materials 1894 UNDP Country Programme Document (CPD) and United Nations Sustainable Development Cooperation 1895 Framework, 2021-2025 1896 List and contact details for project staff, key project stakeholders, including PSC members, Project Team 1897 members, and other partners to be consulted 1898 The project governance structure (for example a ToR of a steering committee) 1899 Risk management report (Quantum Auto-generated) 1900 Memorandum of understanding (if any) 1901 Update on the status of the social and environmental risks identified in the SESP 1902 1903 1904

7.6 Annex 5: Pledge of ethical conduct in evaluation signed by evaluators.

Independence entails the ability to evaluate without undue influence or pressure by any party (including the hiring unit) and providing evaluators with free access to information on the evaluation subject. Independence provides legitimacy to and ensures an objective perspective on evaluations. An independent evaluation reduces the potential for conflicts of interest which might arise with self-reported ratings by those involved in the management of the project being evaluated. Independence is one of ten general principles for evaluations (together with internationally agreed principles, goals, and targets: utility, credibility, impartiality, ethics, transparency, human rights and gender equality, national evaluation capacities, and professionalism).

Evaluators/Consultants:

1906

1907

1908

1909

1910

1911

1912

1913

1914

- 1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
- 2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
- 3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
- 4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
- 5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
- 6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings, and recommendations.
- 7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.
- 8. Must ensure that independence of judgement is maintained, and that evaluation findings and recommendations are independently presented.
- 9. Must confirm that they have not been involved in designing, executing or advising on the project being evaluated and did not carry out the project's Mid-Term Review.

Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:
Name of Evaluator:Mohammad Alatoom
Name of Consultancy Organization (where relevant):
I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.
Signed atSeptember 2024 (Place) on (Date)
Signature:e-signed: Mohammad Alatoom