

Demonstrating Adaptation Reasoning

NIE Readiness Seminar

August 28, 2018, Washington, D.C.







Applying for Adaptation Funding

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category:

Country/ies:

Title of Project/Programme:

Type of Implementing Entity: Implementing Entity:

Executing Entity/ies:

Amount of Financing Requested:

(in U.S Dollars Equivalent)

Project / Programme Background and Context:

Provide brief information on the problem the proposed project/programme is aiming to solve. Outline the economic social, development and environmental context in which the project would operate.

Project / Programme Objectives:

List the main objectives of the project/programme.

Project / Programme Components and Financing:

Fill in the table presenting the relationships among project components, activities, expected concrete outputs, and the corresponding budgets. If necessary, please refer to the attached instructions for a detailed description of each term.

A Look at the Criteria...

- Country eligibility
- Country drivenness: endorsement by the government
- Concrete adaptation actions
- Environmental, socio-economic benefits: especially for the most vulnerable, gender considerations
- Cost-effectiveness
- Consistency with national strategies and plans
- Meeting relevant national technical standards
- Relationship with other funding sources
- Knowledge management

- Consultation process: consultative process involving all stakeholders, including vulnerable communities and women
- Full cost of adaptation reasoning
- Sustainability of outcomes
- Adequacy of project/programme arrangements
- Measures for financial and project/programme risk management
- Results Framework
- Alignment with AF Results Framework
- Budget
- Disbursement schedule with timebound milestones

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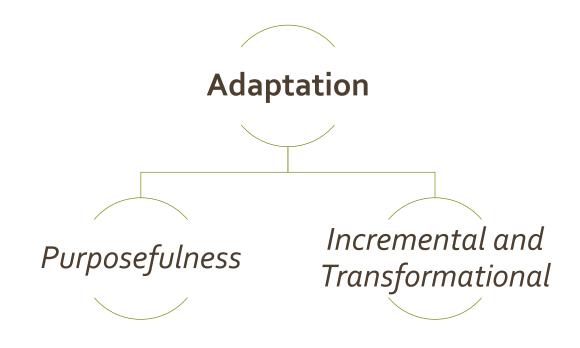
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Full cost of adaptation reasoning

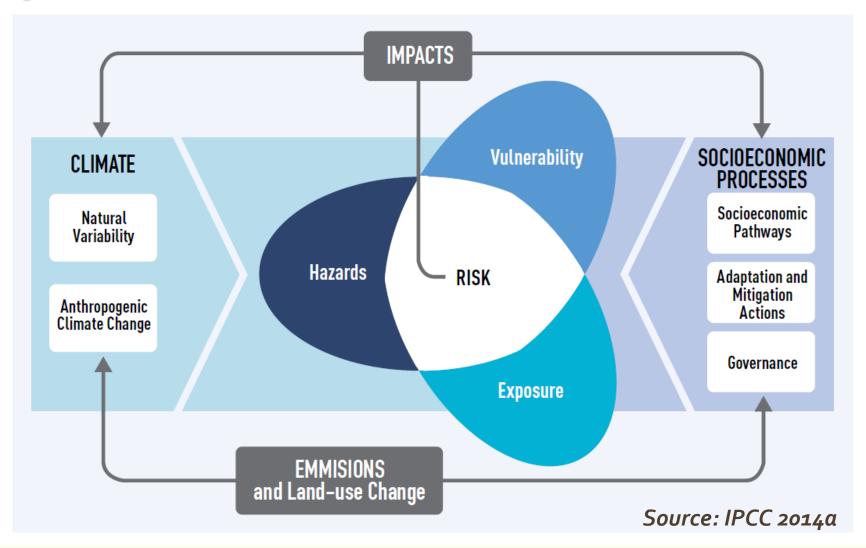
- The project / programme provides justification for the funding requested on the basis of the **full cost of adaptation**
 - •Demonstration that activities are **relevant** in addressing adaptation objectives and that the project intervention (with approved funds) will help achieve the objectives without other funding



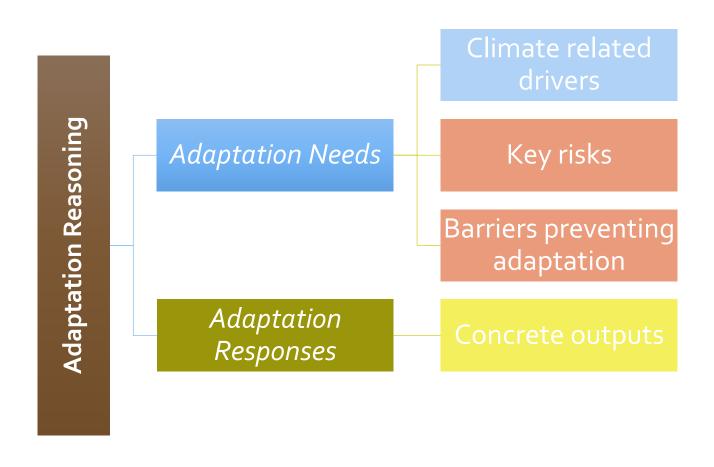
Theory of Adaptation

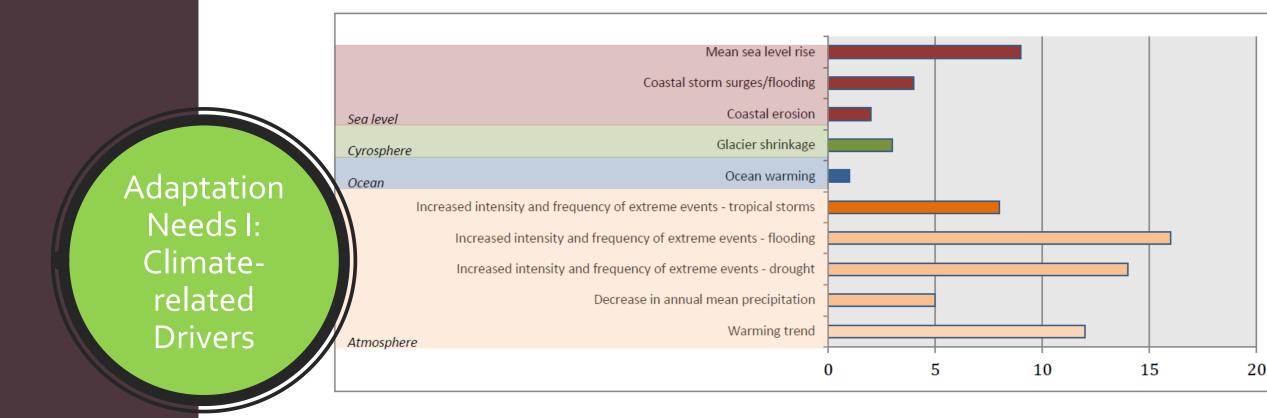


Key Determinants of Climate Risk



Conceptualizing adaptation reasoning

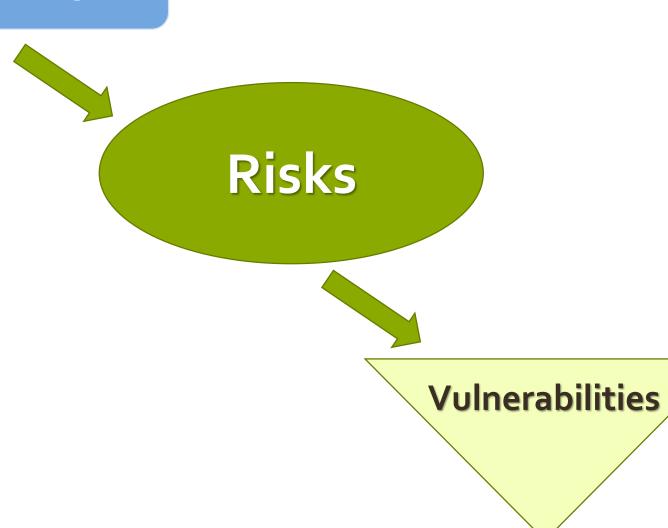




• Drivers: both observed and projected changes in the climate system occurring within the atmosphere, ocean, cryosphere, sea level.



Adaptation Needs II: Key Risks



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1	Risk of death, injury, ill-health, or disrupted livelihoods in low-lying coastal zones and small island developing states and other small islands, due to storm surges, coastal flooding, and sea level rise
2	Risk of severe ill-health and disrupted livelihoods for large urban populations due to inland flooding in some regions
3	Systemic risks due to extreme weather events leading to breakdown of infrastructure networks and critical services such as electricity, water supply, and health emergency services
4	Risk of mortality and morbidity during periods of extreme heat, particularly for vulnerable urban populations and those working outdoors in urban or rural areas
5	Risk of food insecurity and the breakdown of food systems linked to warming, drought, flooding, and precipitation variability and extremes, particularly for poorer populations in urban and rural settings
6	Risk of loss of rural livelihoods and income due to insufficient access to drinking and irrigation water and reduced agricultural productivity, particularly for farmers and pastoralists with minimal capital in semi-arid regions
7	Risk of loss of marine and coastal ecosystems, biodiversity, and the ecosystem goods, functions, and services they provide for coastal livelihoods, especially for fishing communities in the tropics and the Arctic
8	Risk of loss of terrestrial and inland water ecosystems, biodiversity, and the ecosystem goods, functions, and services they provide for livelihoods

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- •Context-specific barriers that needed to be overcome in order for adaptation to be successful:
 - Biophysical and environmental
 - Social
 - Institutional
 - •Information, capacity, and resource needs

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Identifying Needs (Case study: Pakistan)

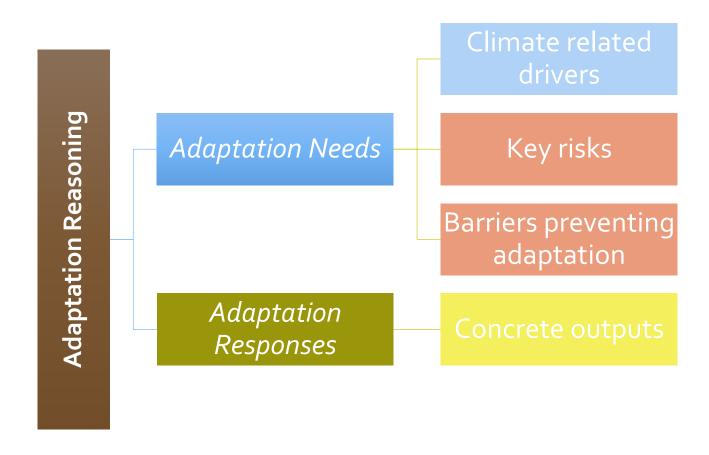
- **Drivers:** Warming trend in the HKH region has been greater than the global average.
- Risks: The most severe threat of this effect is related to the rapid melting of glaciers. As these glaciers retreat, glacial lakes start to form and rapidly fill up behind natural moraine or ice dams at the bottom or on top of these glaciers. The ice or sediment bodies that contain the lakes can breach suddenly, leading to a discharge of huge volumes of water and debris. These are termed Glacier Lake Outburst Floods (GLOFs) and have the potential to release millions of cubic meters of water and debris, with peak flows as high as 15,000 cubic meters per second.

Identifying Needs (Case study: Georgia)

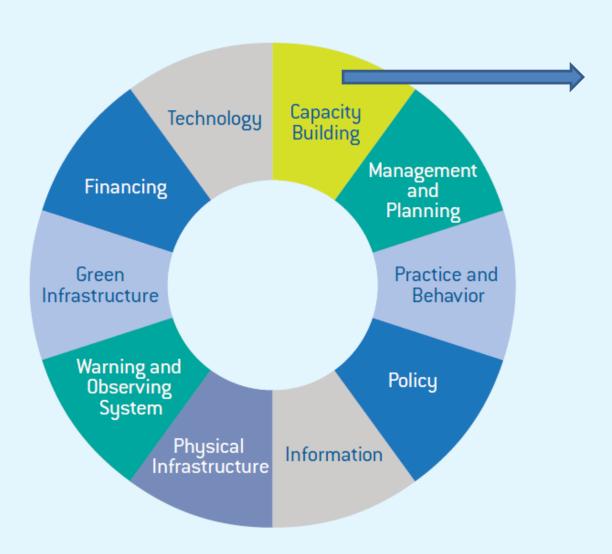
- **Drivers:** A complex mountainous topography makes Georgia more prone to the hydrogeomorphological processes and climatic hazards. 54% of its territory is located at an altitude of 1,000 m above sea level. As such, it is vulnerable to natural hazards including floods, flash floods, earthquakes, droughts, landslides, avalanches, and mud flows. It is observed that the frequency and intensity of catastrophic events has increased.
- **Risks:** Floods, including flash floods are the catastrophic events of such category of high probability.



Approaching the Analysis

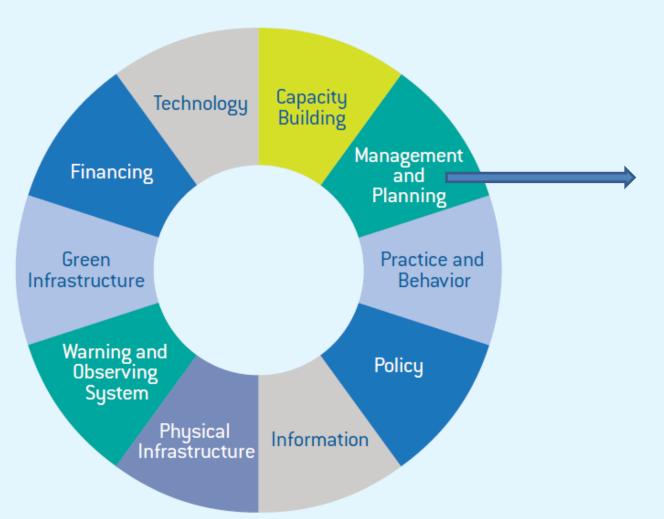


Introduction Highlights Methodology Results Recommendations



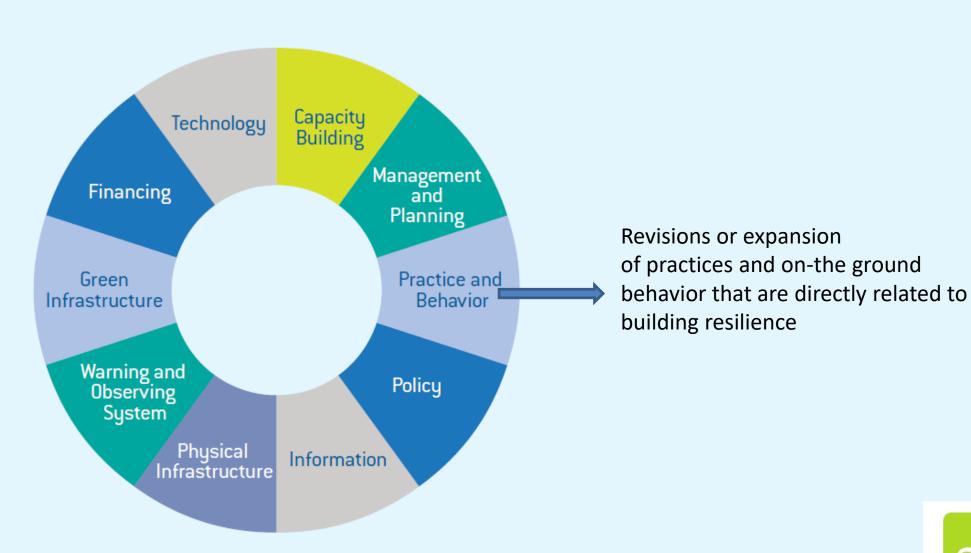
Developing human resources, institutions, and communities; equipping them with the capability to adapt to climate change

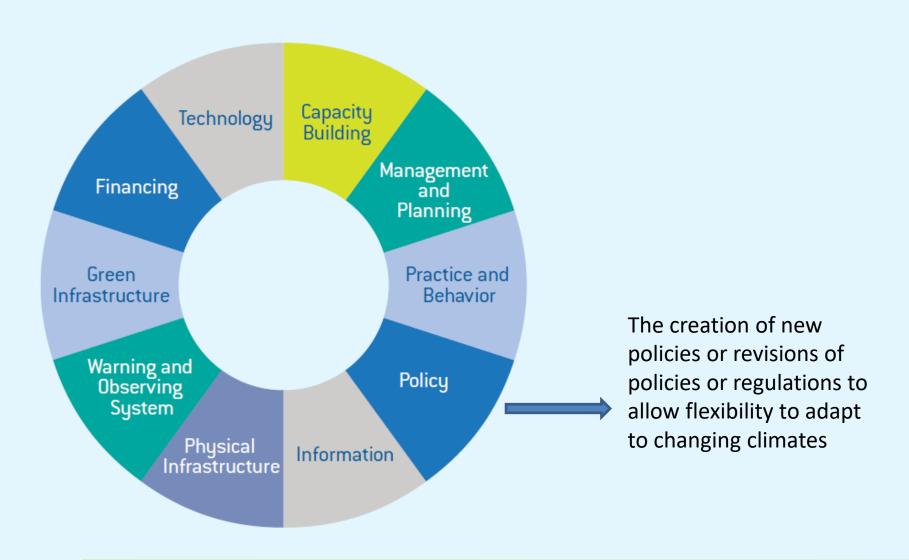


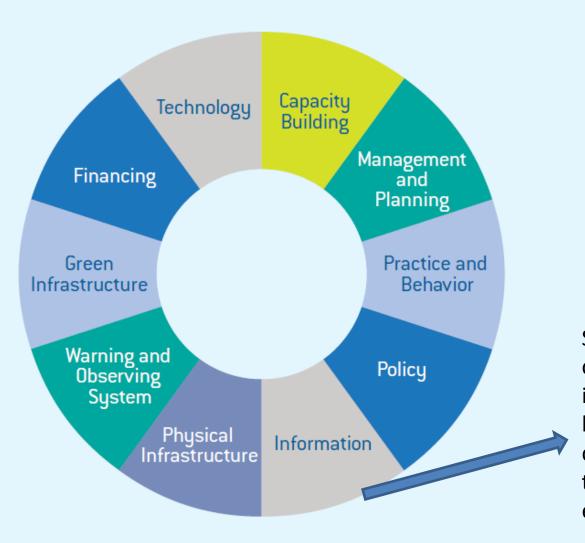


Incorporating understanding of climate science, impacts, vulnerability, and risk in government and institutional planning and management



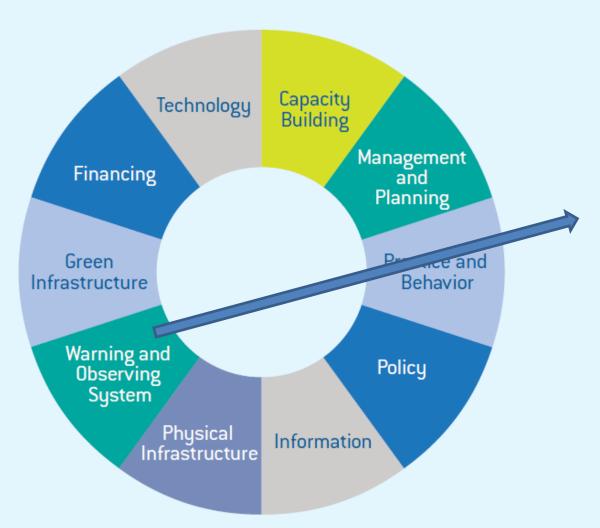






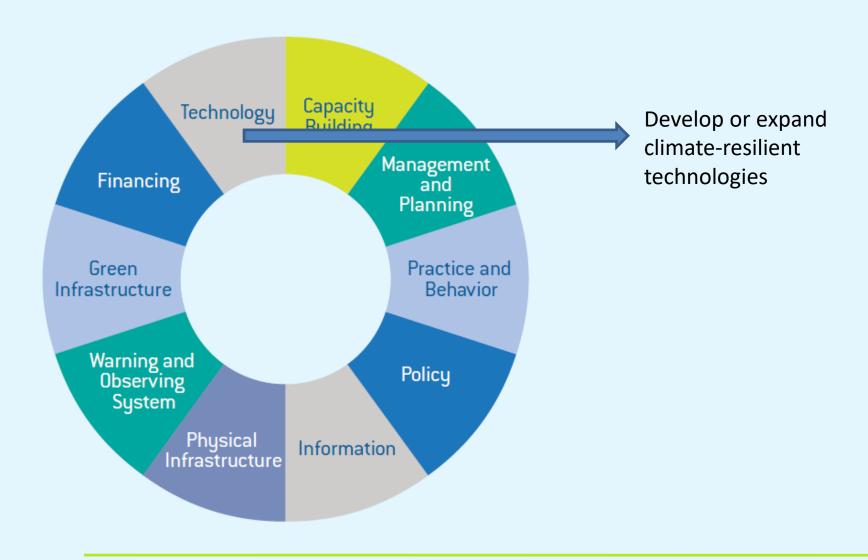
Systems for communicating climate information to help build resilience toward climate impacts (other than communication for early warning systems)



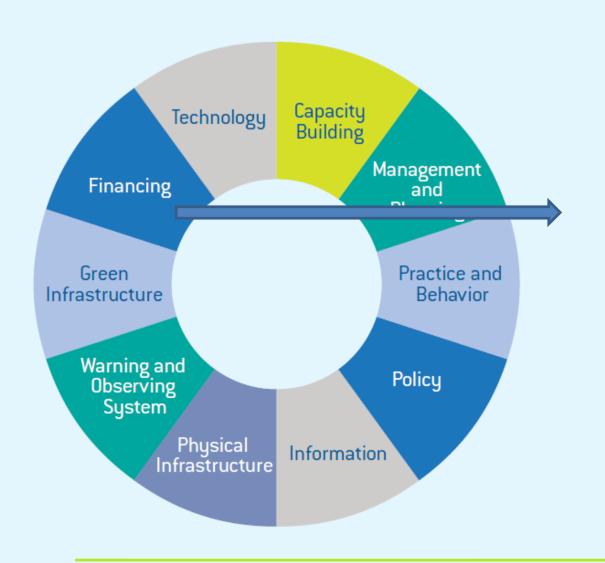


Development of community-based early warning systems, and low-tech information dissemination mechanisms that are linked to national climate monitoring networks



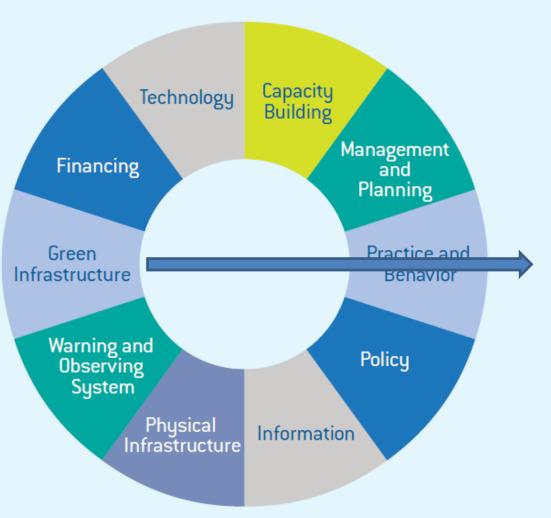






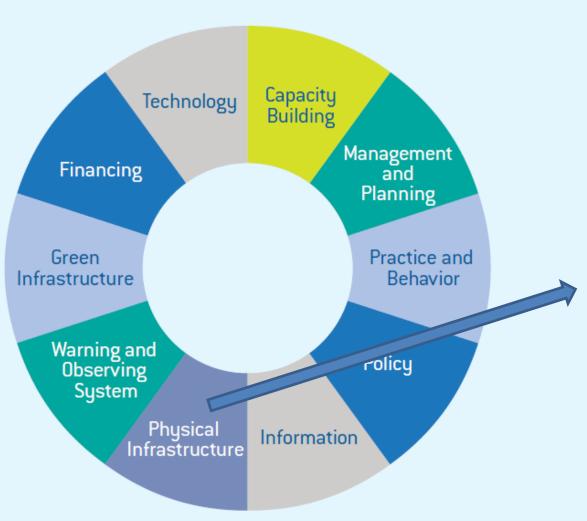
New financing or insurance strategies to prepare for future climate disturbances





Any new or improved naturebased infrastructure aimed at providing direct or indirect protection from climate hazards





Brick and Mortar: Any new or improved hard physical infrastructure aimed at providing direct or indirect protection from climate hazards



Overall objective: To improve resilience of highly exposed regions of Georgia to hydro-meteorological threats that are increasing in frequency and intensity because of climate change.

Outcome 1: Floodplain development policies in place to minimize exposure of highly vulnerable people of Rioni River Basin (RRB) to climate change induced flood risks;

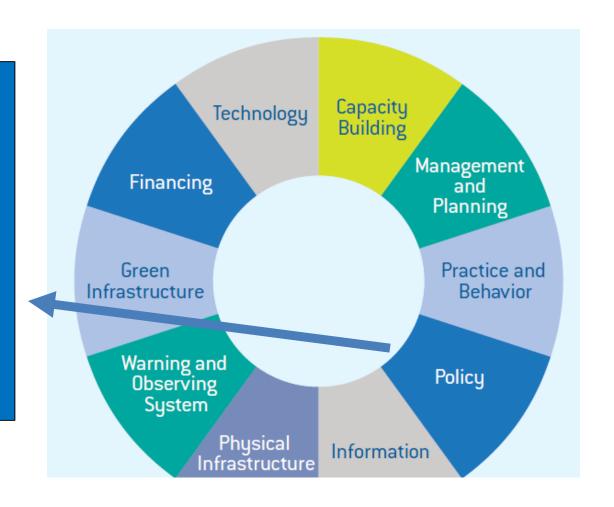
Outcome 2: Direct investments and local actions in highly exposed and vulnerable communities *improve flood management practice* on 8,400 km2 and build resilience of 200,000 people;

Outcome 3: *Institutional capacity developed* for early warning and timely alert communication to vulnerable communities of the RRB.

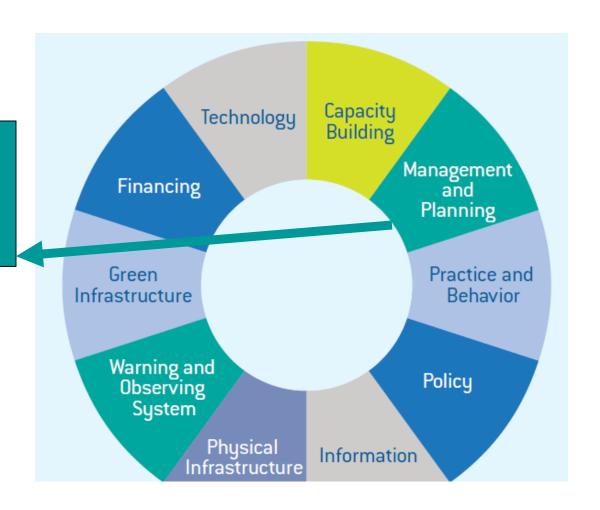


Floodplain zoning policy framework and policy guideline notes were developed, which aims to integrate flood risk management into the land use planning process in Georgia. The risk model has been used as the basis for a flood insurance model which calculates premiums to be paid within each flood insurance zone and the associated payouts for each different magnitude of flood event.

Building codes were reviewed and recommendation for flood resilient building codes have been developed and presented to the relevant authorities.

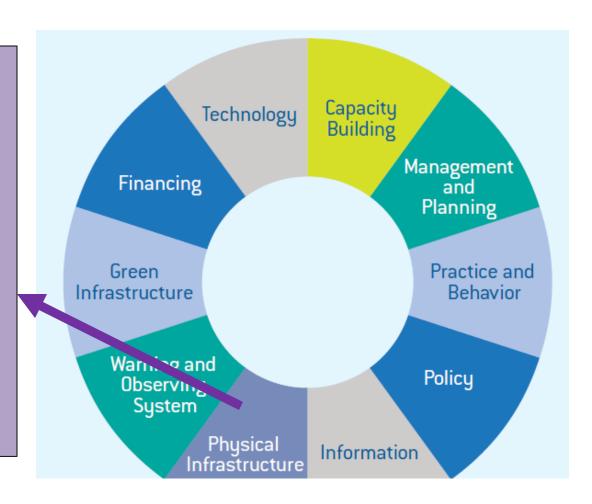


Flood hazard maps (Done in Output 1.1) and risk modelling (Done in Output 1.5) finalized.



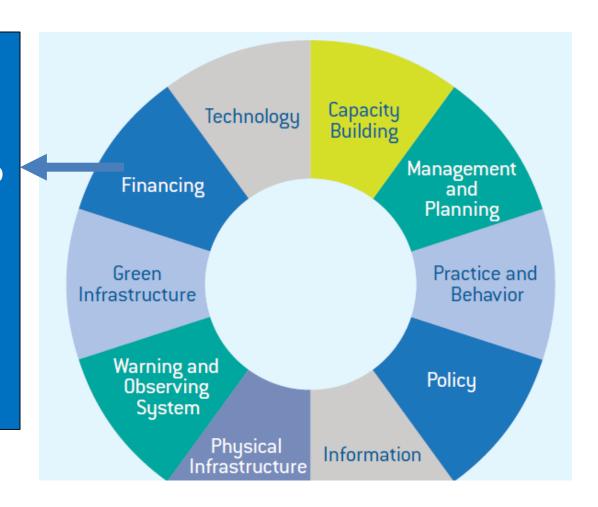
Eleven plots were selected for Agro-forestry, (nine in Samtredia. one in Tskaltubo and one in Oni municipalities), with total area about 11 ha. All plots were fenced and planted with different species like Willow, Ash tree, Oak, Acacia, Wild plum and Nut. Totally 24 000 of trees planted.

35 monitoring stations/posts have been purchased and installed in different places of the Rioni river basin. All these stations/posts are included in the monitoring network, which is operated by the National Environmental Agency.



An **insurance scheme** has been developed for the whole basin (which is over and above the original plan to develop schemes for only the 6 target municipalities) and has the potentially to be eventually implemented nationally.

Employee guarantee scheme developed and launched and has been utilized in the implementation of agro-forestry measures in Rioni.



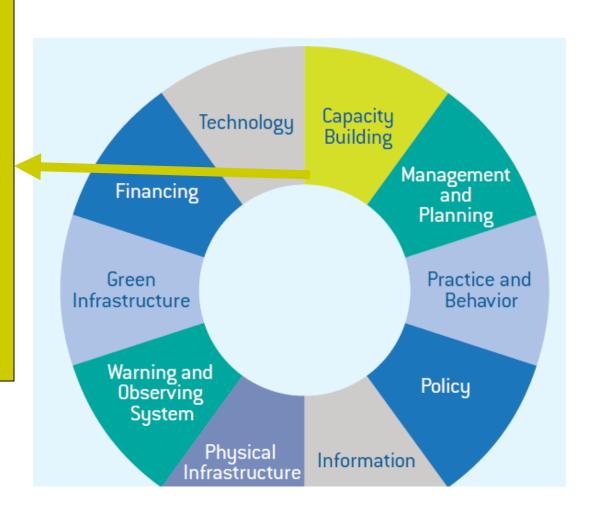
12 NEA staff trained additionally on hydraulic modelling (5 women).

26 NEA staff trained on use of GIS in hazard mapping and risk assessment (12 women).

Additional training provided in the current reporting is as follows: Risk Model training of 6 NEA experts (2 women), Hydraulic Model training for 11 NEA staff.

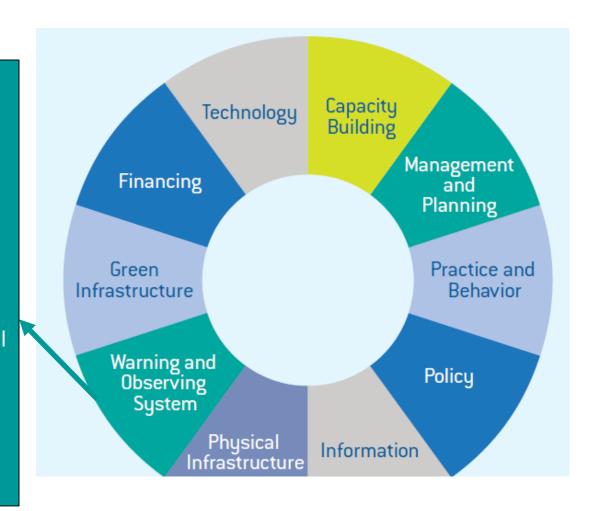
Flood forecasting and early warning training conducted in July 2016 for NEA's staff as well climate risk management/DRR

training conducted for local municipalities in August 2016.



A modern Flood Forecasting Early Warning System (FFEWS) within NEA completed. Now the system allows to disseminate warning more precisely and as early as possible. About 90% of target population have better access to flood/flashflood early warning in Rioni river basin.

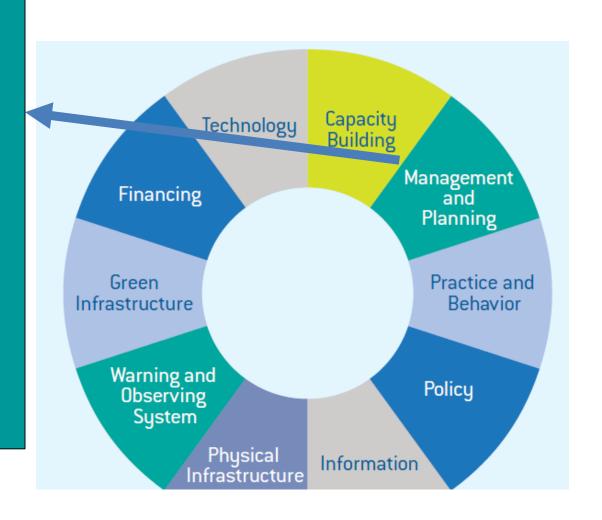
The FFEWS directly benefits 283,162 people in the Rioni basin currently at risk from flooding up to the 1 in 1,000 year event and the 38,857 properties (29.9% of all properties) located in the floodplain. In addition, the net present value of a statistical life saved by the implementation of the FFEWS is \$5.5 Million USD (based on the assumption of a 20-year life of the implemented FFEWS and an average life loss in Rioni of 6 in 21 years and using standard assumptions of value of a statistical life).



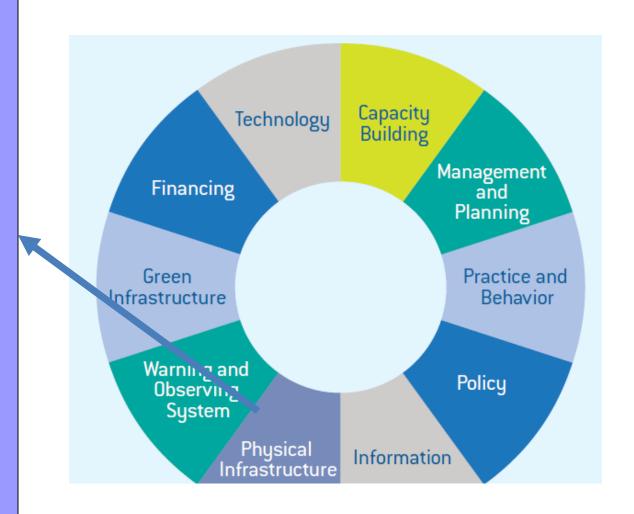
- Overall objective: To reduce climate change-induced risks of Glacial Lake Outburst Floods (GLOFs) in Gilgit-Baltistan and Chitral.
- Outcome 1: Strengthened Institutional capacities to implement policies, plans and investments that prevent human and material losses from GLOF events in vulnerable areas of Northern Pakistan.
- Outcome 2: Improved access of disaster management planners and policy makers to knowledge, Information and research on GLOF risks.
- Outcome 3: Reduced human and material losses in vulnerable communities in the Northern areas of Pakistan through GLOF early warnings and other adaptation measures.



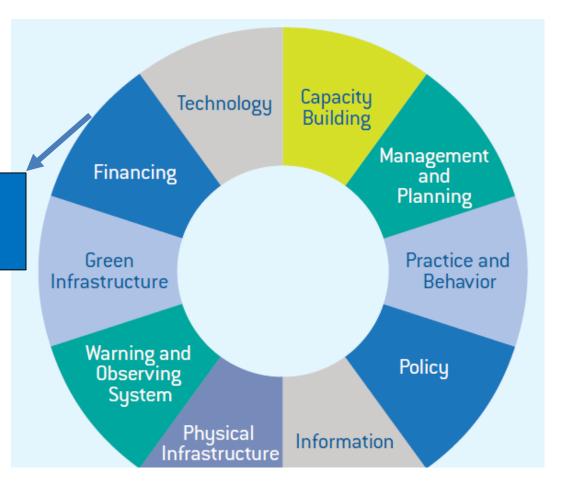
- 1. Disaster Risk Management Committees (DRMCs) established in all 3 project sites.
- 2. Established and Strengthened DRMC Office in all three project sites.
- 3. Established and strengthened Community based Disaster Risk Committee (CBDRC) in all 3 sites.
- 4. Established and strengthened 26 Village based Hazards Watch Groups (VHWGs).
- 5. 14 Indigenous Early Warning system strengthened.



- 1. Twelve protection walls (gabions) constructed.
- 2. 2 River Diversion spurs developed.
- 3. 7 GLOF Monitoring Trails developed.
- 4. Excavation/path clearing done in 6 places.
- 5. Made River Diversion in one place of Bindo Gol valley.
- 6. Safe places identified and established 23 Safe Heaven and provided equipment and also made sanitary arrangement in the Safe heaven.
- 7. Explored and identified safe route
- 8. Bioengineering work done in 32 places and used as demonstration sites to provide knowledge to local communities on bioengineering.
- 9. Plantation using local species of trees were conducted and used these as demonstration plots.37,000 saplings planted.
- 10. 2 Bridge constructed in Bindo Gol valley to improve access to GLOF risk Valley.

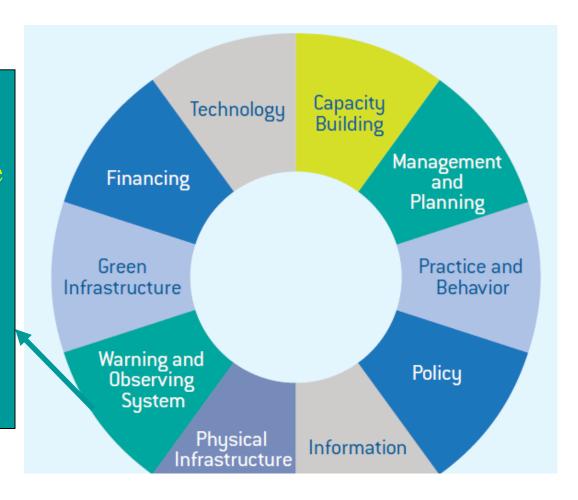


6. Community based DRM endowment Fund established in all three project sites with input of PRs2.2million for each.



Adaptation Outputs (Case study: Pakistan)

- ❖ 5 Automatic Weather Stations installed.
- ❖ 5 Automatic Rain Gauges installed.
- ❖ Installed six RQ30 (automatic river discharge measuring system).
- Installed 2 Glacier Monitoring Sensors/Cameras
- Installed 2 Glacial Lake Monitoring Sensors
- ❖ 3 Meteorological Weather Station (Manual) established.



Concrete adaptation actions

- The project / programme supports concrete adaptation actions to assist the country in addressing the adverse effects of climate change and builds in climate change resilience: description of activities
 - How the activities help with adaptation and resilience
 - Concrete: visible and tangible results.
 - Good project design: cohesion and alignment
 - Linking intervention to climate threat (not BAU, ENV)
 - Taking non-climatic barriers into account
 - Full proposal: details on specs, linking to CC scenario
 - Regional project to include both regional and country perspective/added value

Full cost of adaptation reasoning

- The project / programme provides justification for the funding requested on the basis of the full cost of adaptation
 - No co-financing required: possible and often beneficial, but should not constitute a risk of delay
 - Demonstration that activities are relevant in addressing adaptation objectives and that the project intervention (with approved funds) will help achieve the objectives without other funding
 - **Full proposal**: more details and if applicable, quantification of expected project impact on adaptation



Project Formulation Grant (PFG) and Project Formulation Assistance (PFA)

- NIEs: PFG, up to \$30K, PFA is a top-up for additional studies and assessments (so no workshops, consultations, etc.), for up to \$20K.
- MIE/RIE: for regional projects, can apply for a PFG, up to \$20K at pre-concept + up to \$80K at concept, or up to \$100K at concept stage, if there was no preconcept.
- PFG: https://www.adaptation-fund.org/generic/request-for-project-for-mulation-grant-pfg/
- PFA: https://www.adaptation-fund.org/readiness/readiness-grants/



Thank you!



www.adaptation-fund.org afbsec@adaptation-fund.org



adaptationfund



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A look at the review criteria in detail

- Country(ies) Eligibility
 - Country(ies) should be party to the Kyoto Protocol
 - Should be developing country(ies) particularly vulnerable to the adverse effects of climate change (all non-Annex I countries qualify)





Endorsement by the government through its Designated Authority



- Most eligible countries have nominated DA
- Letter template available under submission materials on AF website
- Separate endorsement letter to be submitted for each submission



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Consistency with national strategies and plans

- Project / programme has to be consistent with national sustainable development strategies, national development plans, poverty reduction strategies, national communications or adaptation programs of action, and other relevant instruments
- Concept stage: identification of key strategies and plans
- Full proposal: detailed explanation of compliance with relevant plans and strategies
- Regional project: if applicable, should refer to relevant regional plans and strategies where they exist.

NATIONAL ADAPTATION

NATIONAL ADAPTATION STRATEGIES



SUSTAINABLE
DEVELOPMENT
STRATEGY
2007-2009
Towards a Culture







Duplication / overlap with other funding sources

- The project must not duplicate / overlap with activities funded through other funding sources
- Identification of all potentially overlapping activities (donor, government, others)
- Full proposal: clear outline of linkages and synergies with each relevant project
- Lessons learned from earlier projects
- Coordination arrangements



Knowledge management

- The project / programme must have a learning and knowledge management component to capture and feedback lessons
- The only "must-have" project component activity
- KM is part of AF Results Based Management: systematic project-level tracking of experiences gained
- Adaptive management, development of learning objectives and indicators
- Full proposals: detailed explanation





Sustainability of outcomes

- The sustainability of the project/programme outcomes taken into account when designing the project: the adaptation benefits achieved should be sustained after the end of project/programme
- Should enable replication and scaling up with other funds
- Arrangements for ensuring sustainability (maintenance, continuing processes etc.)
- All key areas of sustainability: economic, social, environmental, institutional, and financial



Adequacy of project / programme management arrangements.

- Should include a clear description of the **roles and responsibilities** of the implementing entity as well as any executing entity or organizations/stakeholders that are involved in the project.
- If necessary, provide a **full organization chart** showing how they report to each other.
- For regional project: describe arrangements for management at the regional and national level, including coordination arrangements within countries and among them, and how the potential to partner with national institutions or NIEs has been considered and included in the management arrangements
- The implementation arrangements should be cost-effective and efficient, and country-ownership should always be privileged.

Measures for financial and project / programme risk management

- The proposal should identify all major risks, consider their significance, and include a plan of monitoring and mitigating them.
- It should provide a table with detailed information on the different categories of risks (i.e. financial, environmental, institutional...), their level and how they will be managed.

Table 10: Risks and risk management

No	Type	Description	Management strategies	Rating
1	Institutional	Policy makers	Project will also build capacity of the relevant	Medium
		prioritize	national stakeholders at central and local	
		economic	levels. Moreover, awareness raising activities	
		benefits over	will be implemented at the target sites to	
		sustainable and	convince and change behavior of decision	
		resilient	makers towards ecosystem roles in climate	
		ecosystems	change adaptation.	
2	Environmental	Extreme natural	Timing of the period of field activities and	Medium
		disasters affect	design of the interventions will take account of	
		confidence of	weather conditions and extreme rainfall and	
		local community	storm events that can sometimes overwhelm	
		to adaptation	ecosystem rehabilitation projects and these	
		measures	risks will be incorporated into the operational	
			contingencies.	
3	Environmental	Environmental	Environmental factors will be part of the	Medium
		impact of	project activity and water structure designs,	
		structures in	particularly in considering water supply	
		watercourses	development and upland wetland conservation	
		and reefs	at Mare aux Couchons and other sites, and	
			improving reef integrity and functions	
			consistent with international standards for reef	
_			enhancement.	
4	Environmental	Methods of	Ecosystem rehabilitation experiences will	Low
		ecosystem rehabilitation	need to be adjusted and refined to address	
		need better	hydrological variables, including informed	
		testing for	understanding of forest cover change and watershed runoff and infiltration using	
		hydrological	biological technologies as well as other	
		impacts	methods. Intensive discussion on the selection	
		impacts	of appropriate methods and species, and the	
			monitoring systems to assess performance	
			will be designed into the process.	
5	Social	Adaptation	The project will ensure that the adaptation	Low
•	Cociai	measures	measures are gender sensitive and	2000
		increase	demonstrate at the local level that they do not	
		inequity	limit the participation of women and the	
			disabled as beneficiaries. Disconnection of	
			illegal water abstractions may create some	
			resentment but the issue will be managed	
			within a community-based water planning	
			process in collaboration with local authorities.	
6	Financial	The cost of the	Project activities have been designed and	Low/Medi
		proposed	costed as accurate as possible in its	m
	1		development stage. MEE (including the	I
		measures may	development stage, will (including the	I
		be higher than	Project Management Unit) and UNDP will	

Results framework

Results Framework for Ecosystem Based Adaptation to Climate Change in Seychelles

Objective &	Indicators	Baseline	Targets	Source of	Risks and
Components			_	Verification	Assumptions
Project Objective: To incorporate ecosystem based adaptation into the country's climate change risk management system to safeguard water supplies, threatened	Ecosystem services and natural assets maintained or improved under climate change and variability-induced stress	Project watersheds and coastal areas are regularly subject to water shortages and flooding events	Reduced water shortages and flooded area involving about 4,000 ha of watershed and coastal ecosystems	Project Monitoring Reports on the Status of Project Watershed and Coastal Ecosystems	Impacts of climate change do not outpace project adaptation responses (this will be alleviated by the project's interventions targeted build resilience)
by climate change induced perturbations in rainfall and to buffer expected enhanced erosion and coastal flooding risks arising as a result of higher sea	August mean daily discharge on two rivers (Mare aux Couchons & Baie Lazare) with increased base flows ⁷⁸	Mare aux Couchons August Avg Mean Daily Discharge: 261.1 L/S Baie Lazare August Mean Daily Discharge: 33.4 L/S	Mare aux Couchons and Baie Lazare: Aug. baseline flows +20 – 30%	PUC stream gauge data	Annual variability in rainfall and discharge can mask improvements PUC stream gauges stay functional
levels and increased storm surge.	January mean daily discharge on two rivers with decreased flood flows	Mare aux Couchons January Avg Mean Daily Discharge: 595.4 L/S Baie Lazare January Mean Daily Discharge: 173.1 L/S	Mare aux Couchons and Baie Lazare: January baseline flows -20%	PUC stream gauge data	Annual variability in rainfall and discharge can mask improvements PUC stream gauges stay functional
Component 1: Ecosystem-based adaptation approaches along	Number of water users with more reliable water supply	10% of PUC water supply customers in project watersheds without fully reliable surface water supply	100% of PUC customers in target watersheds with more reliable water supply	Water use directives and reports by PUC	Continued high dependence on catchment area water resources
the shorelines of the	Number of days per	Number of days per year	0 days of no water availability	PUC stream	PUC stream

Alignment with AF Results Framework

Project Objective(s) ⁸¹	Project Objective Indicator(s)	Adaptation Fund Strategic Outcomes	Adaptation Fund Outcome Indicators
To incorporate ecosystem based adaptation into the country's climate change risk management system to safeguard water supplies, threatened by climate change induced perturbations in rainfall and to buffer expected enhanced erosion and coastal flooding risks arising as a result of higher sea levels and increased storm surge.	a) Ecosystem services and natural assets maintained or improved under climate change and variability-induced stress b) Mean August discharge on two rivers (Mare aux Couchons & Baie Lazure), with increased base flows c) Mean January discharge on two rivers with decreased flood flows	Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress Outcome 4: Increased adaptive capacity within relevant development and natural resource sectors	5. Ecosystem services and natural assets maintained or improved under climate change and variability-induced stress 4.1. Development sectors' services responsive to evolving needs from changing and variable climate 4.2. Physical infrastructure improved to withstand climate change and variability-induced stress
Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator
Outcome 1: Vulnerable coastal communities benefit from enhanced ecosystem	a) Est. number of water users with more reliable water supply	Output 2.2: Targeted population groups covered by adequate risk reduction systems	2.2.2 Number of people affected by climate variability
resilience and water harvesting capabilities in water catchment areas covering 3000 hectares	Number of days per year water supply is not available at two streams: Baie Lazare and Mare aux Couchons	Output 5: Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	5.1. No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type of assets)
	c) Volume of raw water production from PUC facilities in project watersheds	Output 4: Vulnerable physical, natural, and social assets strengthened in response to climate	4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting

Budget

- Include a detailed budget with:
 - Budget notes;
 - A budget on the Implementing Entity management fee use;
 - An explanation and a breakdown of the execution costs;
 - For regional projects: budget to be broken down by country as applicable



Disbursement schedule with timebound milestones

	Upon Agreement signature	One Year after Project Start ^{a/}	Year 2 ^{b/}	Year 3	Year 4 ^{c/}	Total
Scheduled Date						
Project Funds						
Implementing Entity Fee						

^a/Use projected start date to approximate first year disbursement (Start date = project inception workshop)



b/Subsequent dates will follow the year anniversary of project start

c/Add columns for years as needed