Addressing adaptation reasoning criteria

ADAPTATION FUND

11th Adaptation Fund Readiness Webinar

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Outline of Presentation

i. Establishing a Robust Climate Rationale

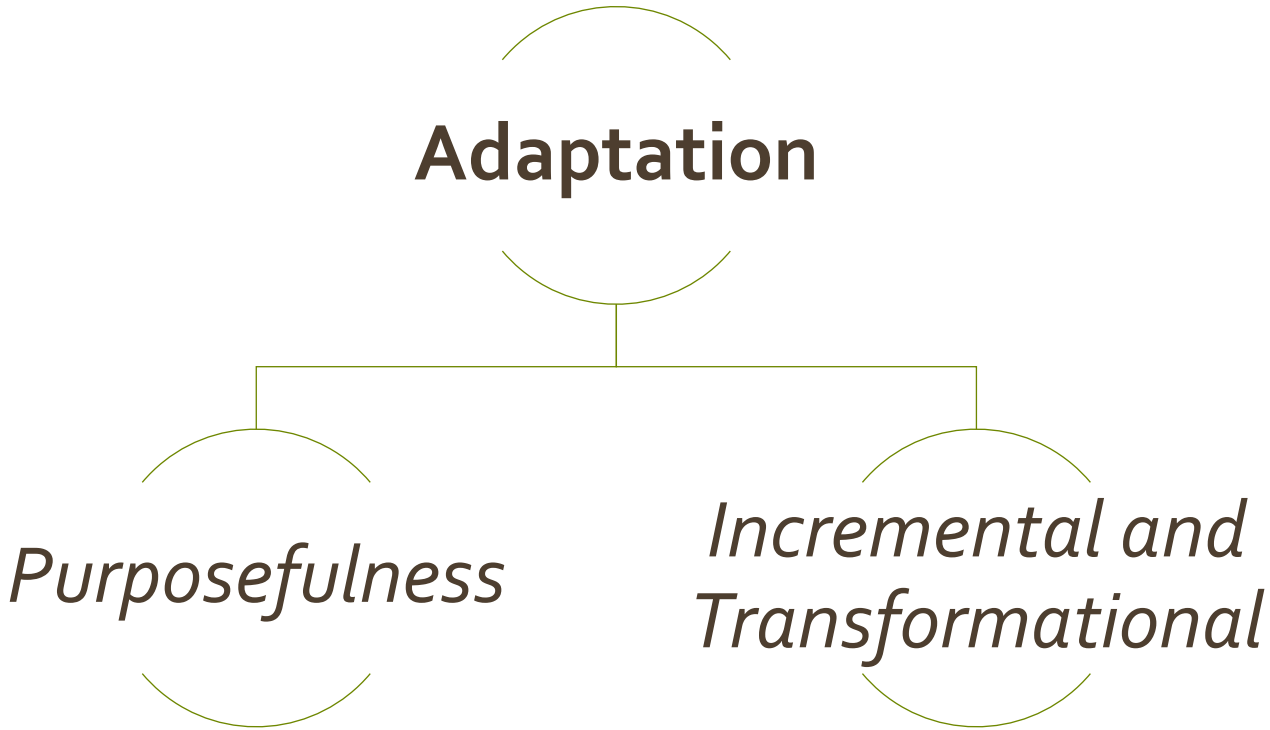
ii. Conceptualizing Adaptation Reasoning

iii. Adaptation Needs: Climate Related Drivers, Key Risks, Barriers & Responses

iv. Adaptation Reasoning at the AF

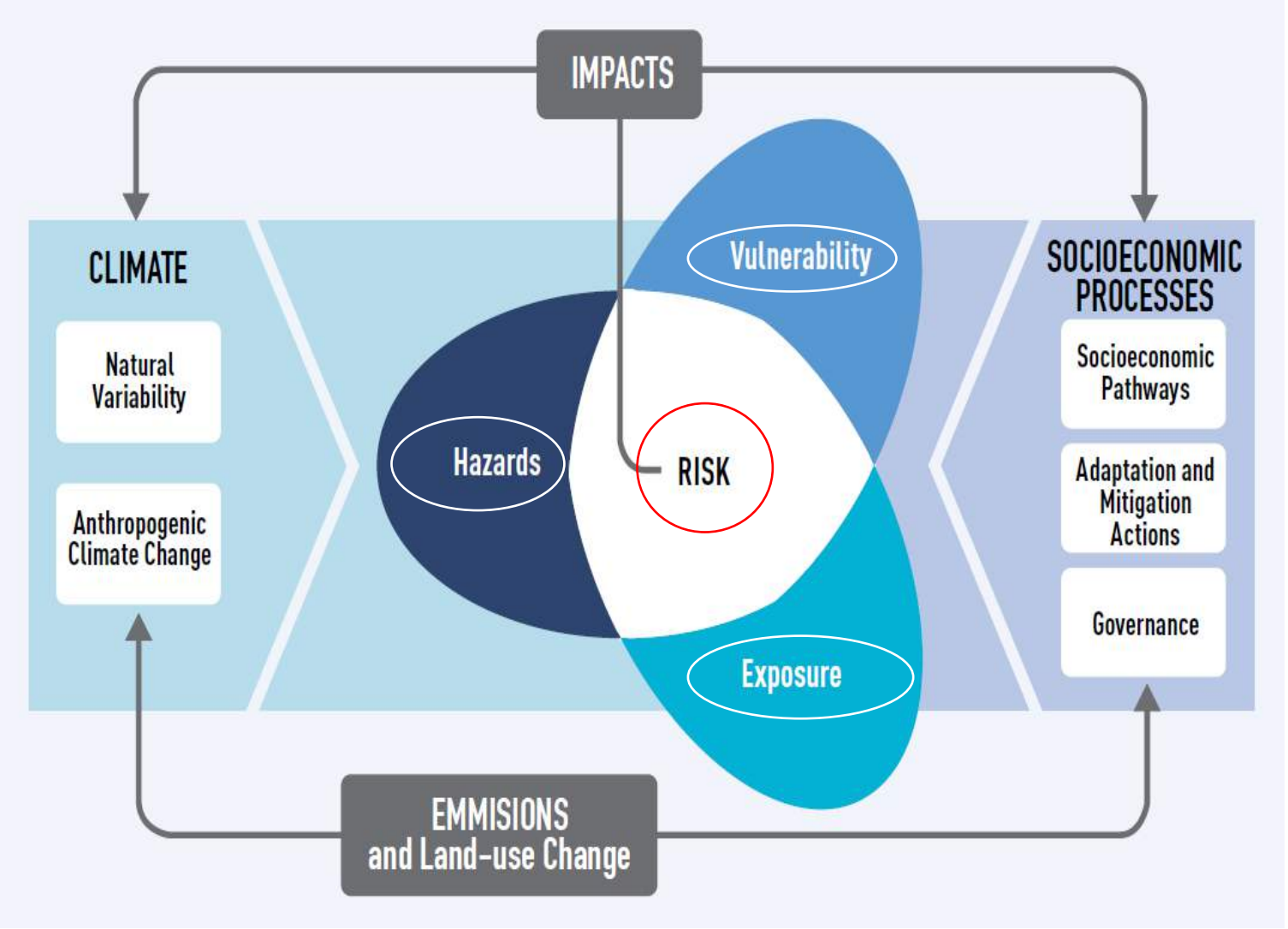
v. Case Study

Theory of Adaptation



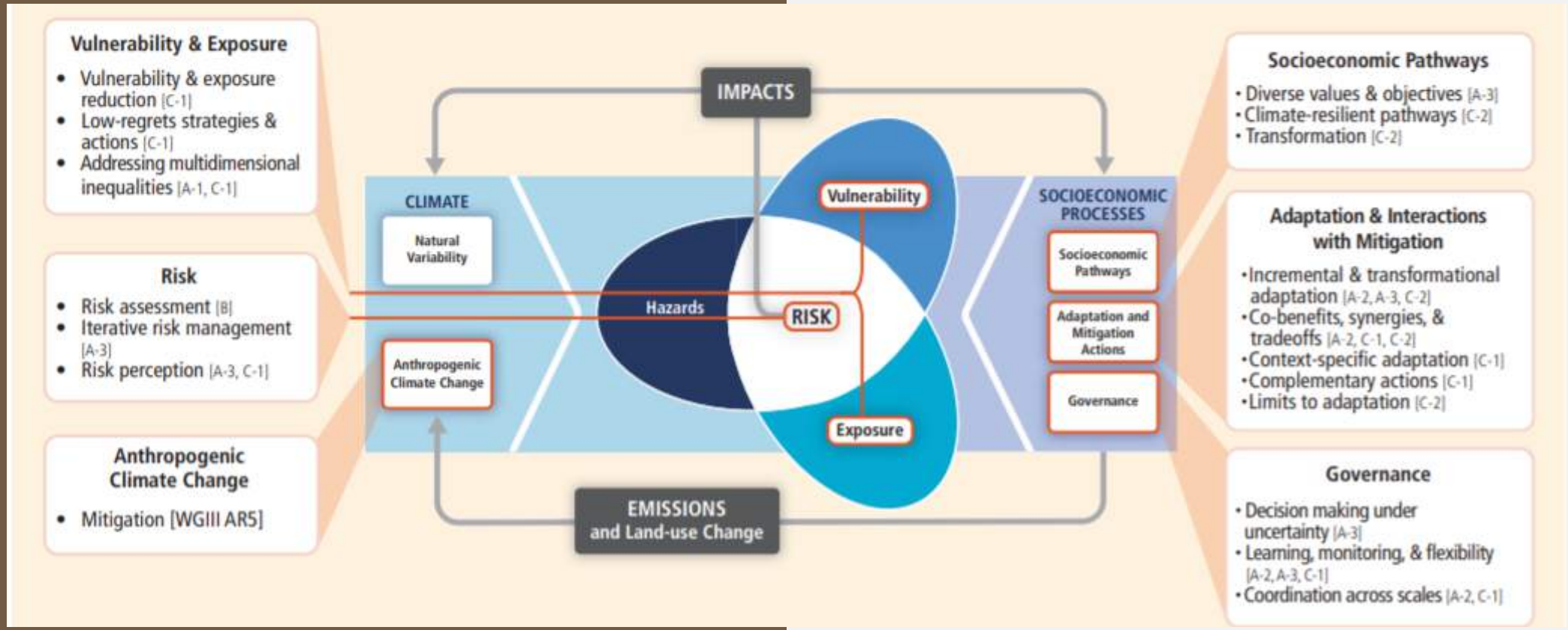
Key Determinants of Climate Risk

Source: IPCC 2014a



Overlapping entry points and approaches and key considerations, in managing risks related to climate change

Source: IPCC 2015a



Principles of adaptation

Adapted from IPCC 2015a

i. Adaptation is place and context specific

ii. Adaptation planning and implementation enhanced through complementary actions across levels

iii. Reduce vulnerability and exposure to present climate variability

iv. Recognition of diverse interests, circumstances, social-cultural contexts, and expectations can benefit decision making processes

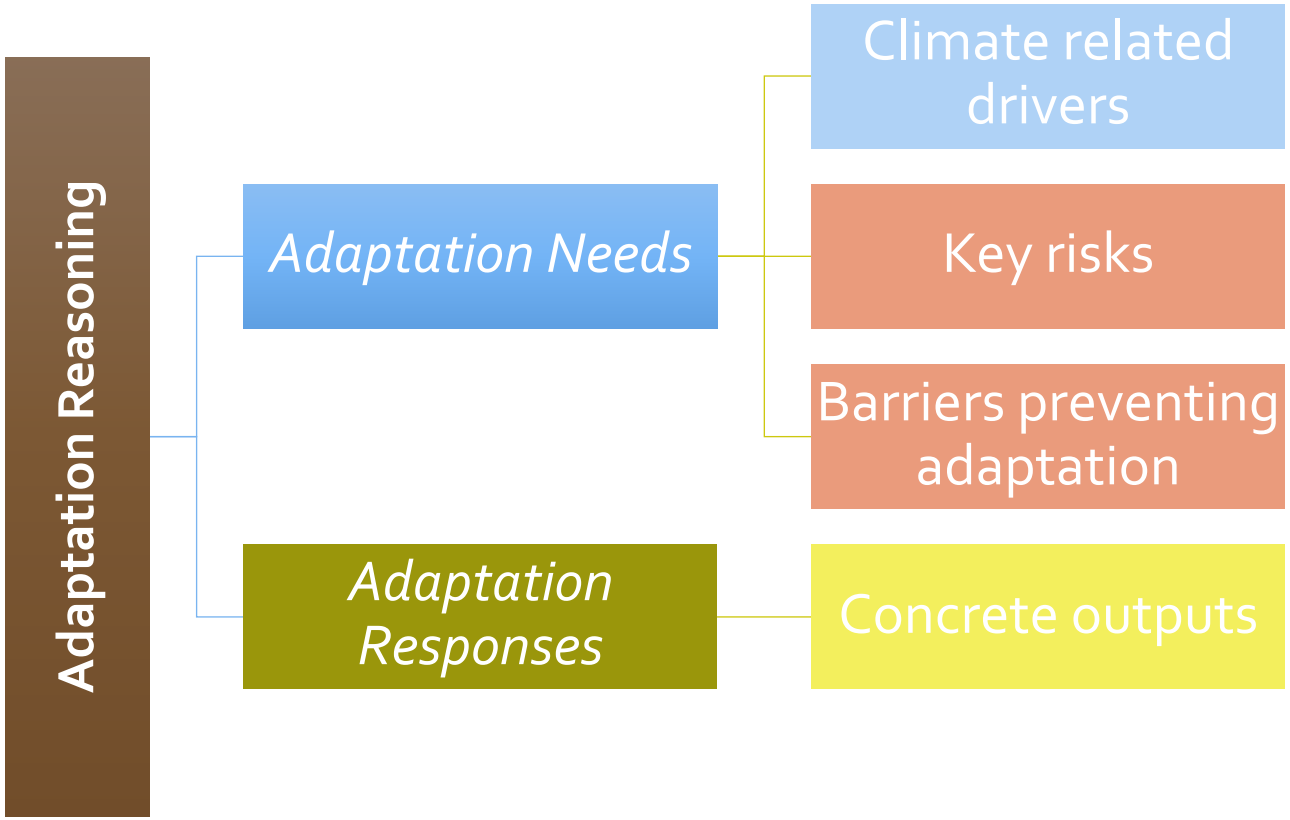
v. Indigenous, local, and traditional knowledge systems and practices, are a major resource for adapting to climate change

vi. Sensitivity to context and the diversity of decision types, decision processes, and constituencies ensures effective decision making

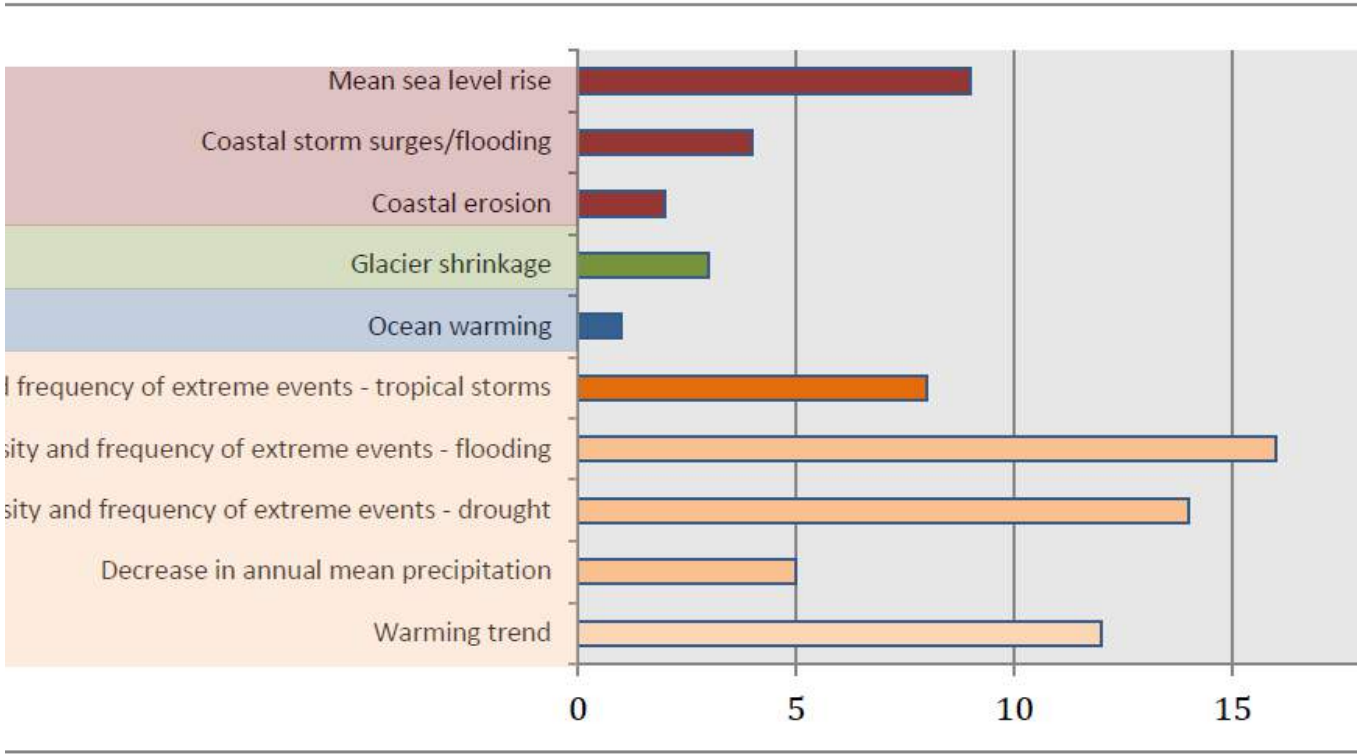
vii. Integration of adaptation into planning and decision making can promote synergies with development

viii. Poor planning, overemphasizing short-term outcomes, or failing to sufficiently anticipate consequences can result in maladaptation

Conceptualizing adaptation reasoning



Adaptation Needs I: Climate-related Drivers



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

Adaptation Needs II: Key Risks

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

Adaptation Needs II: Barriers – what is needed to adapt

Adaptation Need	Characteristics
Biophysical and Environment	Maintenance of vital ecosystem services – provisioning services (such as food, fiber, and potable water supply), regulating services (such as climate regulation, pollination, disease control, and flood control), and supporting services (such as primary production and nutrient cycling)
Social	Includes the range of needs for human security – availability of natural, physical, human, political, and financial assets; stability of livelihoods; livelihood strategies
Institutional	A need for effective institutions to identify, develop, and pursue climate-resilient pathways for sustainable development, through social, institutional, and technological innovation
Information, capacity, and resource	Successful implementation of adaptation activities requires the availability of information, access to technology, and funding

Adaptation Options

Structural/ Physical	Social	Institutional
Engineered and built environment	Education	Economic
Technological	Information	Laws and regulations
Ecosystem based	Behavioral	Government policies and programs
Services		

Adapted version of the categories and examples of adaptation options (as included in IPCC the Fifth assessment report)

Adaptation reasoning at the Adaptation Fund

- Assist Parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change; Serving the Paris Agreement since 1 January 2019.
- Finance concrete adaptation projects and programmes

- Activities shall aim at producing visible and tangible results on the ground
- Strategic Results Framework has been developed, drawing upon definitions of adaptation and vulnerability used by Working Group II of the Fourth Assessment Report of the IPCC

- Whilst the Fund's mandate is to finance concrete adaptation projects, scope is also provided for projects to strengthen the enabling environment (SRF Outcomes 1, 2 and 7 and associated output indicators)
- The Fund's adaptation reasoning remains in alignment with current thinking (purposefulness, social and economic drivers)

Adaptation “Outputs”

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

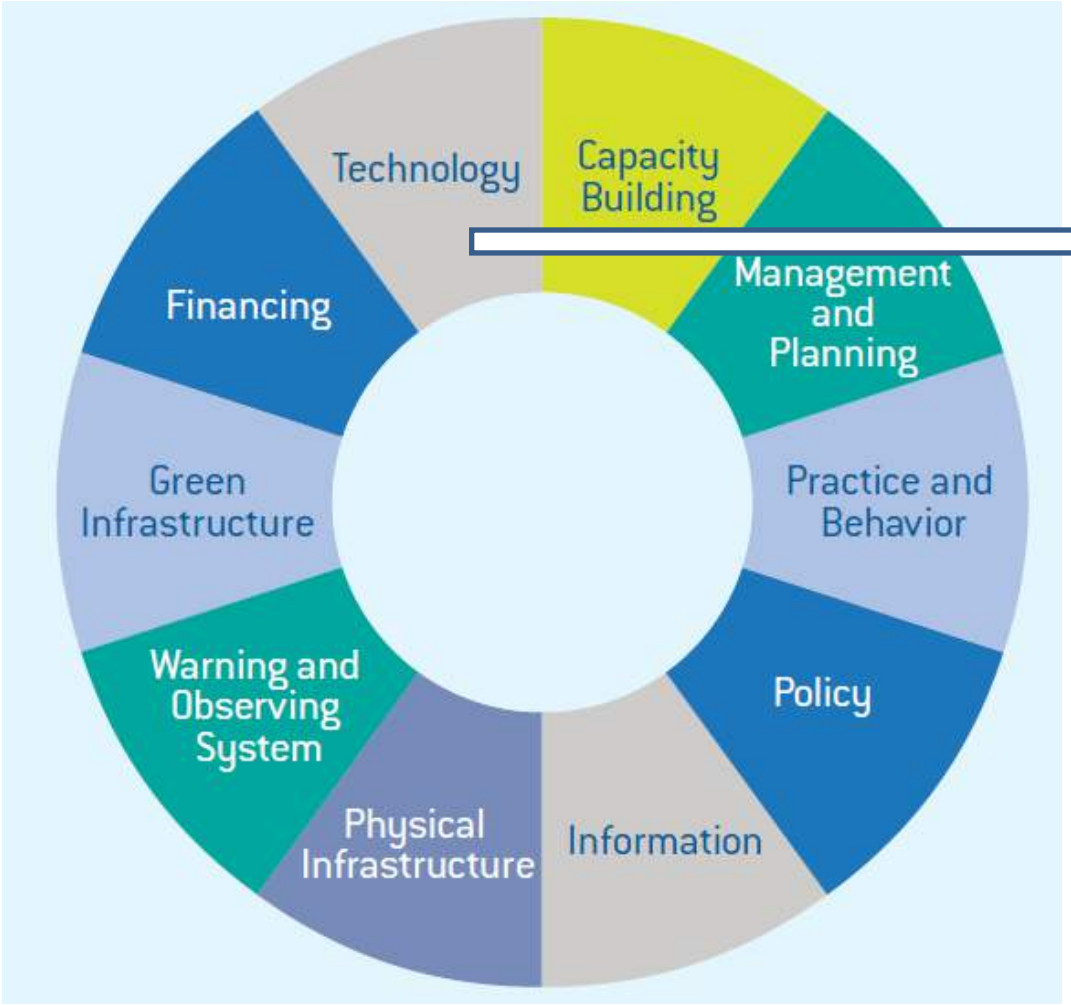
Incorporating understanding of climate science, impacts, vulnerability, and risk in government and institutional planning and management

Revisions or expansion
of practices and on-the ground
behavior that are directly related to
building resilience

The creation of new policies or revisions of policies or regulations to allow flexibility to adapt to changing climates

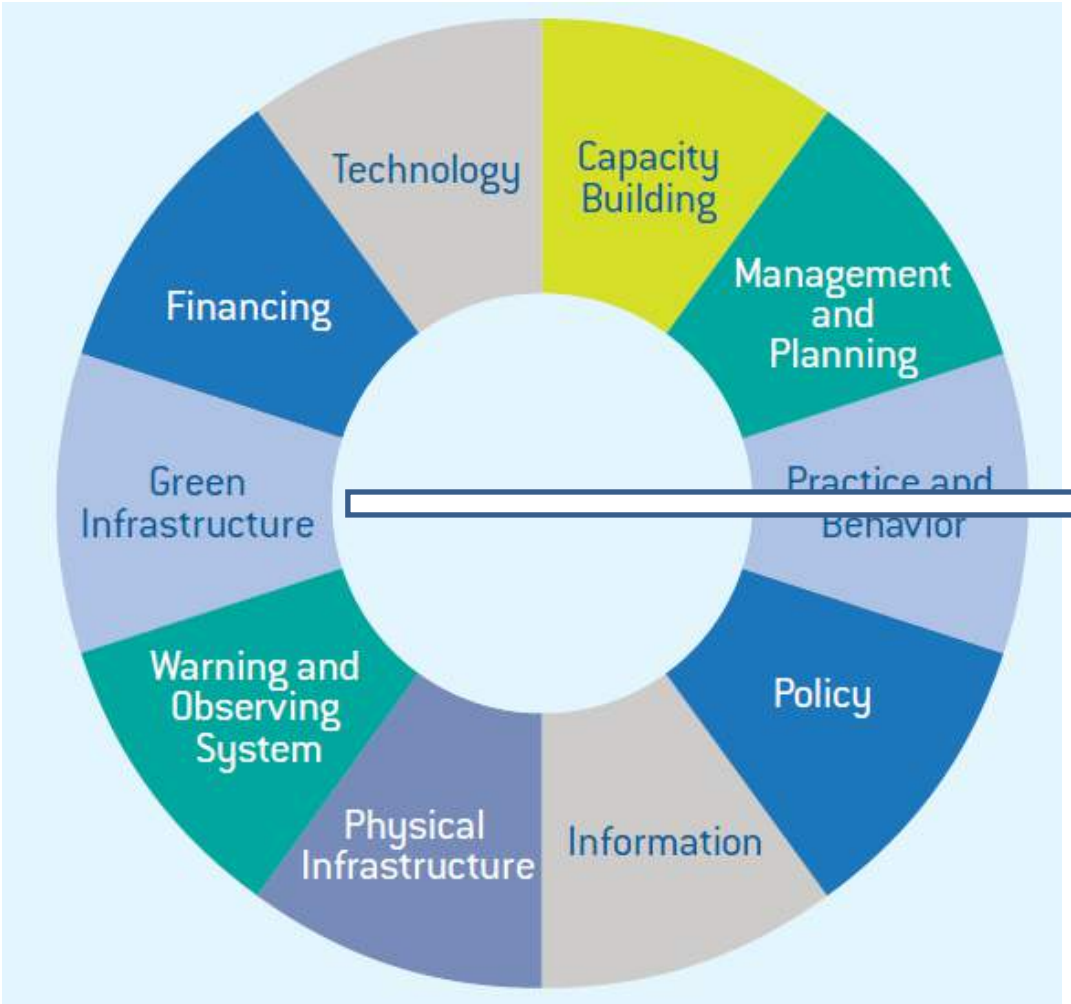
Systems for communicating climate information to help build resilience toward climate impacts (other than communication for early warning systems)

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



Develop or expand climate-resilient technologies

New financing or insurance strategies to prepare for future climate disturbances



Any new or improved nature-based 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

Identifying Needs (Case study: Pakistan)

- **Drivers:** Warming trend in the HKH region has been greater than the global average.

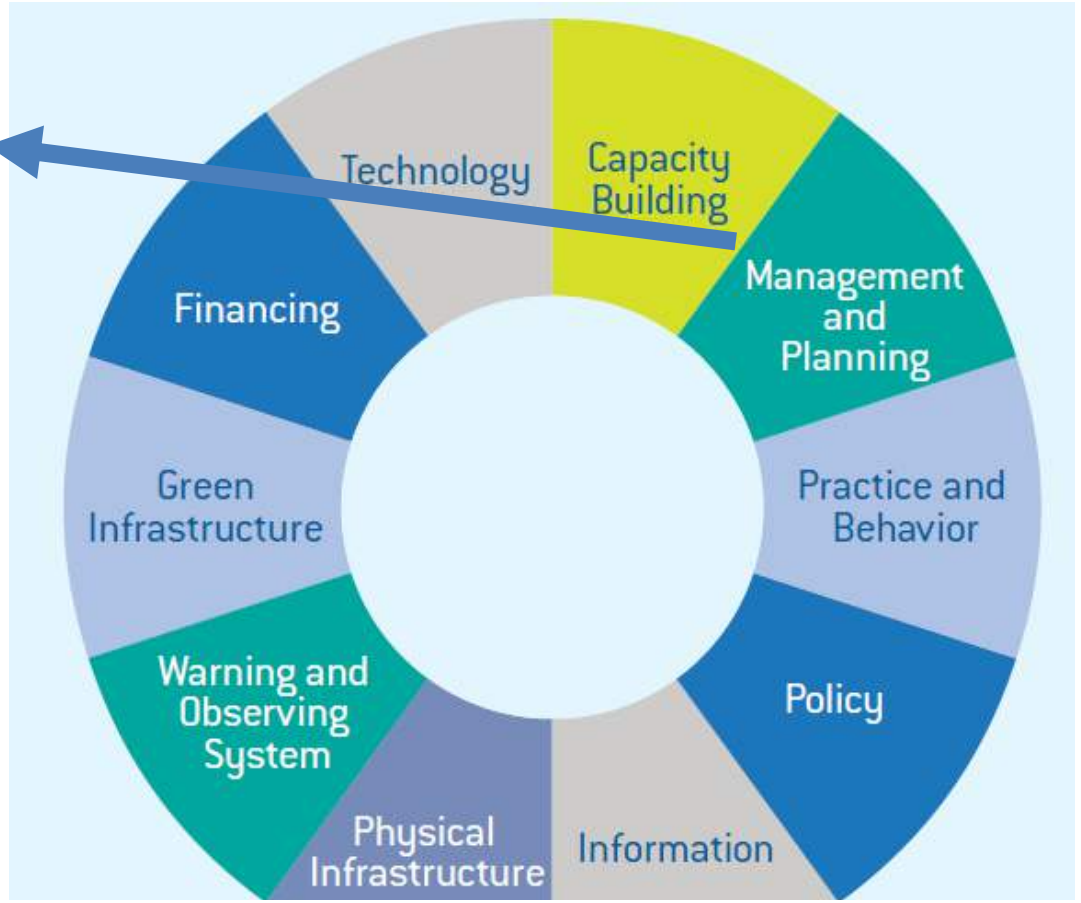
- **Risks: Glacier Lake Outburst Floods (GLOFs)** and have the potential to release millions of cubic meters of water and debris, with peak flows as high as 15,000 cubic meters per second.

Adaptation Outputs (Case study: Pakistan)

- **Overall objective:** To reduce climate change-induced risks of Glacial Lake Outburst Floods (GLOFs) in Gilgit-Baltistan and Chitral.
- **Outcome 1:** ***Strengthened Institutional capacities***
- **Outcome 2:** ***Improved access of knowledge, Information and research on GLOF risks***
- **Outcome 3:** ***GLOF early warnings and other adaptation measures***.

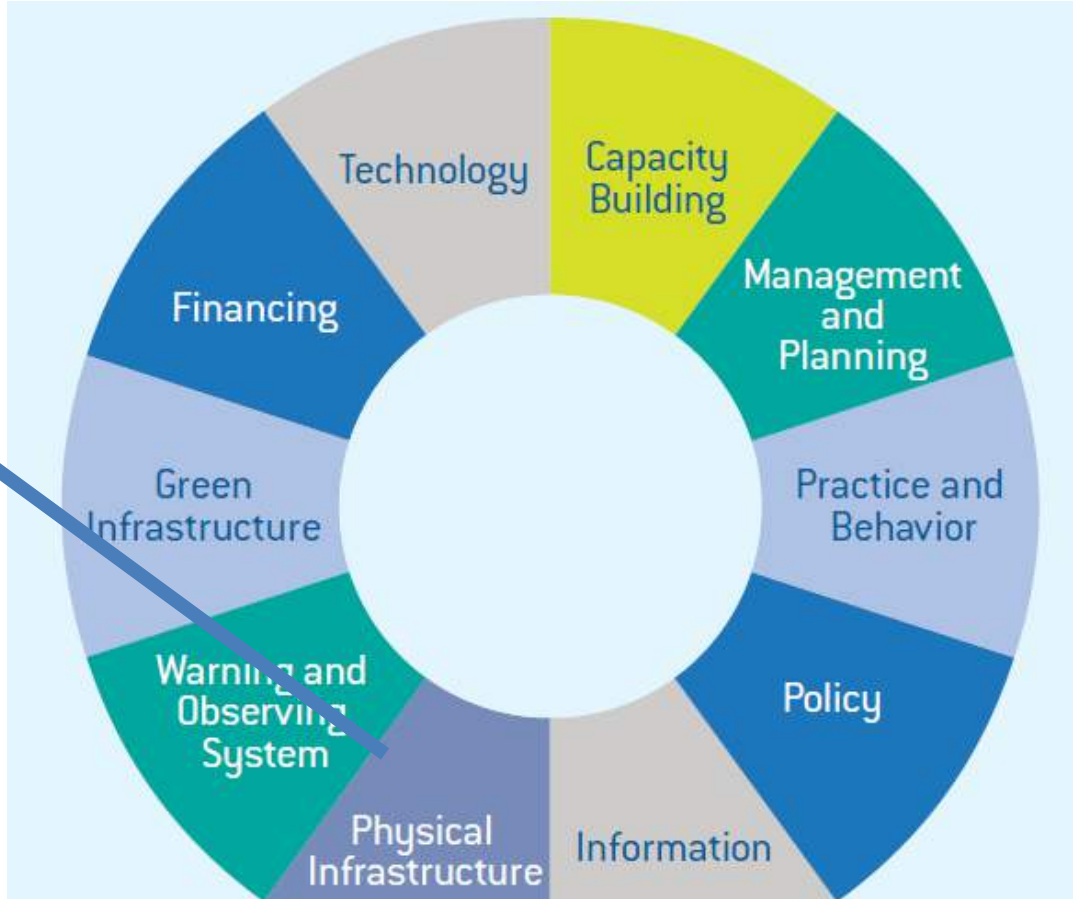
Adaptation Outputs (Case study: Pakistan)

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



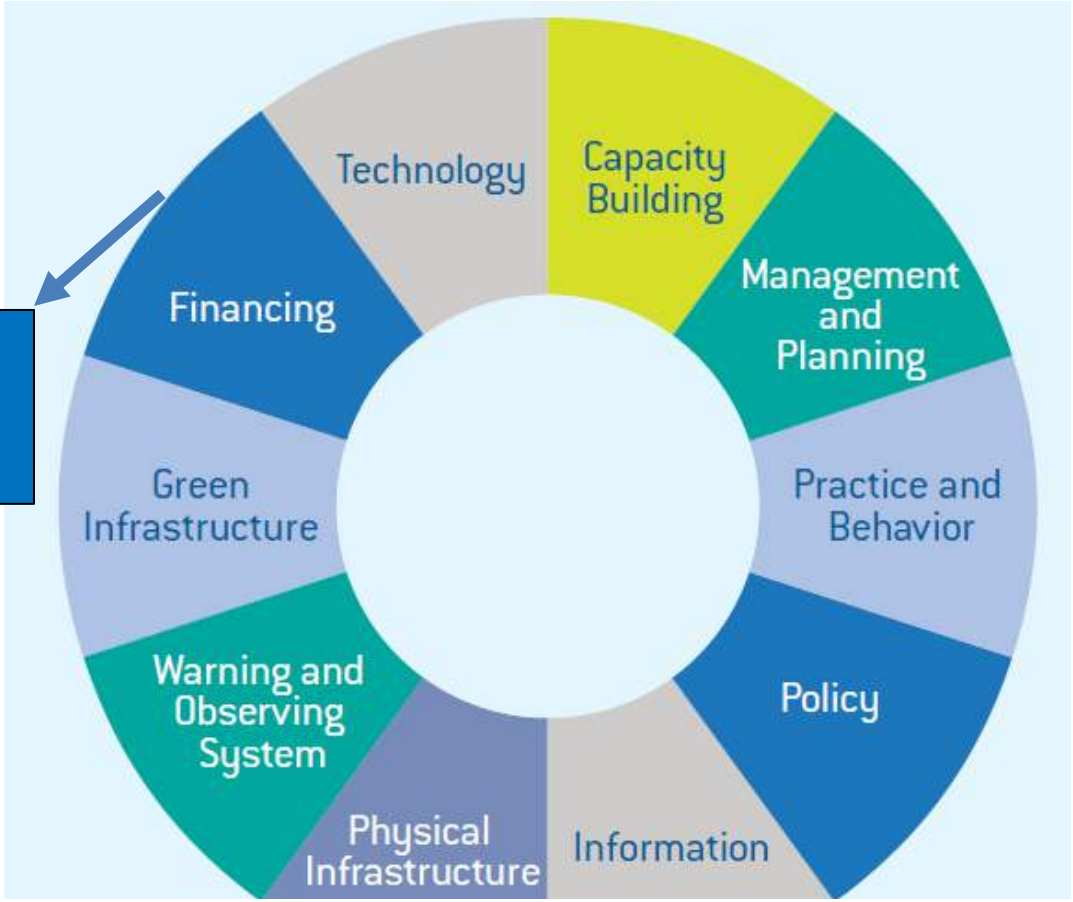
Adaptation Outputs (Case study: Pakistan)

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



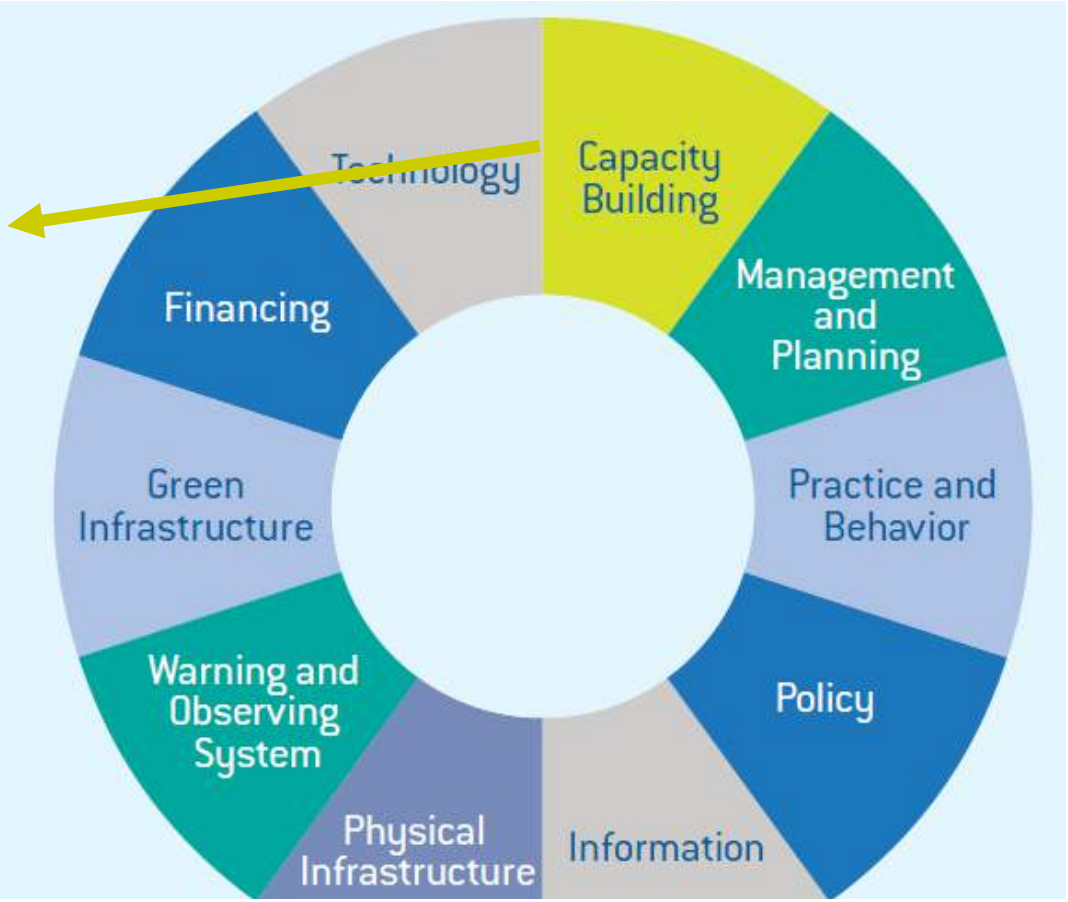
Adaptation Outputs (Case study: Pakistan)

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



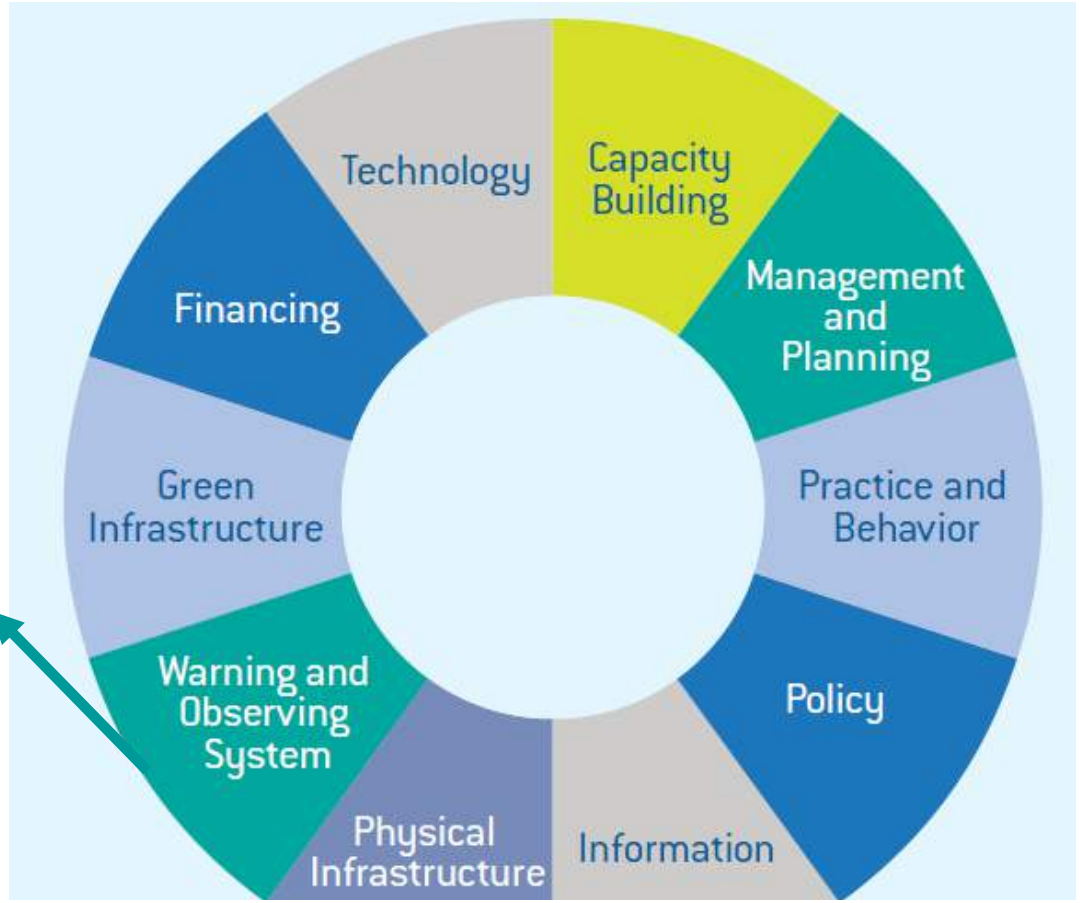
Adaptation Outputs (Case study: Pakistan)

- Conducted 85 workshops/meetings in the community for students, community members etc. for awareness generation.
- 22 Workshops conducted on GLOF for Women.
- 9 DRM Trainings conducted for local community leaders and community organisation.
- DRM Plan developed for three working Valleys.
- 7 exposure visits conducted for various sector personalities including government representatives to the project sites for first-hand information.
- Conducted 25 studies on various subjects related to GLOF and its impact.
- Developed Watershed Management Plan for the three project valleys.
- 20 Linkages development meetings were conducted which was followed by exposure visits of line departments and NGOs to Target Valleys.
- 5 Hazard maps (2Bagrote, 2Bindo Gol and 1 Golain Valley) of the valley and of villages developed.
- 170 Capacity Building activities conducted for disabled and elderly persons



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.



A few key takeaways

- **Robust adaptation rationale should include a** vigorous assessment of impacts and disaster risks accompanied with reliable scientific resources & data
- The suite of **interventions should comprehensively addresses identified underlying climate risks** by clearly articulating the proposed activities and how they address expected climate risks, impacts and vulnerabilities
- **Incremental** and **transformational adaptation** is integral to maintain the essence and integrity of existing functions, and have been the dominant focus on adaptation efforts to date
- **Knowledge management**, **replication** and **sustainability** create an important link between demonstrating adaptation responses, strengthening the enabling environment in which the responses occur, capturing and disseminating the lessons learned to facilitate replication, and ensuring outcomes are sustained to allow replication to occur
- Proposals should explain how activities are **aligned with climate and development policies at national and subnational levels**. It is important to not underscore the importance of devolved decisions making (e.g. success of EDA projects).
- Replication of results relies on **integration into national planning instruments** and **decision-making** for long-term low-emission climate resilient development

Thank You

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