

BUILDING A CLIMATE-RESILIENT WATER GOVERNANCE FRAMEWORK IN BOLIVIA

This study aims to assess the potential of the Climate Investment Funds' (CIF) Pilot Program for Climate Resilience (PPCR) to build robust institutional adaptive capacity in Bolivia's water sector. Using a previously tested evaluation framework developed by the University of Geneva, the study explores the type of adaptation processes currently underway in Bolivia, including those initiated with PPCR support, and proposes interventions that could address core gaps, strengthen institutional adaptive capacity, and facilitate transformative change in Bolivia's water sector.

CONTEXT

Since 2009, CIF's USD 1.2 billion PPCR has been assisting national governments in integrating climate resilience into development planning across sectors and stakeholder groups. In Bolivia, PPCR supports an integrated plan to improve water resource management in five sub-basins (Jacha Jahuirá, Kullu Cachi, Mizque, Piraí, and Rocha); additional infrastructure to cover water availability gaps in the El Alto-La Paz metropolitan area and other rural areas; and improvements of existing agriculture infrastructure. In addition, it focuses on planning and adaptive capacity at the national level.

Adaptive capacity is key to reducing the likelihood and magnitude of harmful climate change impacts. It is thus vital to define it in operational terms, such as in the context of sustainable development. An integrated framework that addresses knowledge gaps at the national or project level and effectively measures how adaptive capacity is being incorporated into sectors is needed. The study uses such a framework developed by the University of Geneva to assess the adaptive capacity of the Bolivian water governance system. It uses two recent crises to draw out lessons: the major drought of 2016/2017 and the flood of late 2017/early 2018, which heavily affected the La Paz/El Alto metropolitan area and the Tiquipaya area in Cochabamba, respectively. By factoring in recent and projected climate events, the study considers how existing governance systems and their associated mechanisms have facilitated or inhibited the water sector's adaptive capacity.

KEY FINDINGS

The methodological framework of the study focuses on three key determinants of a system's adaptive capacity: regime, knowledge, and networks. For each determinant, several indicators are used to assess whether and how they have led to three types of adaptation processes/responses —



QUICK FACTS

PUBLICATION DATE

February 2020

RELEVANT CIF PROGRAM

Pilot Program for Climate Resilience (PPCR)

EVALUATION FIRM

The University of Geneva

RELEVANT COUNTRY

Bolivia (with potential scaling to other countries in the Andean region)

To access full study please click [here](#) or scan the QR code.

To access all CIF Evaluation and Learning publications click [here](#).



In collaboration with

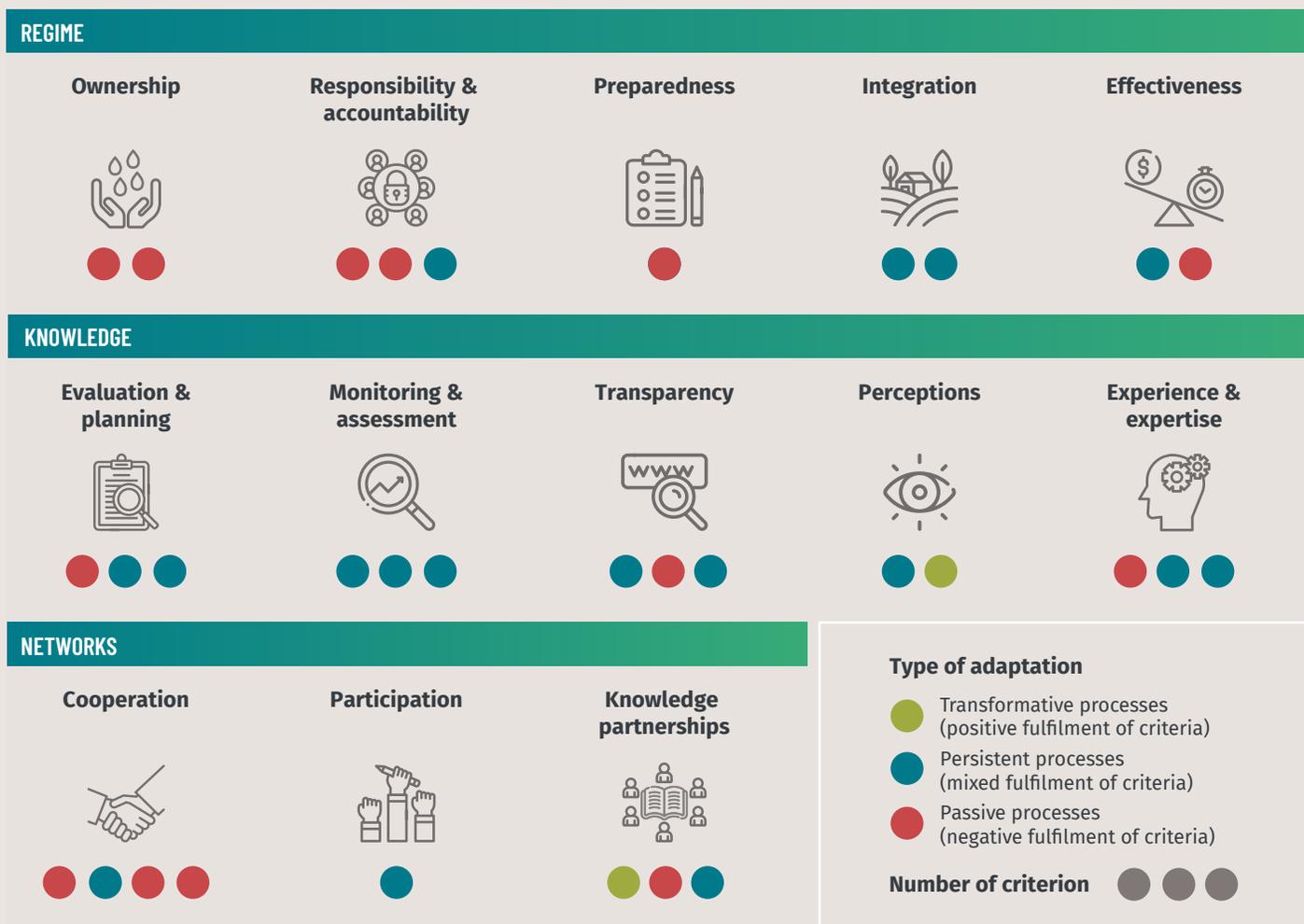


transformative, persistent, or passive. The key findings of the analysis, summarized in Figure 1, are explained in more detail below:

- 1 Across all determinants and indicators, the conclusions are predominantly mixed.** Weaknesses identified in the governance system are offset by encouraging examples of institutional changes, policies, projects, programs, and altered mindsets — signs of positive changes that relate to the building of adaptive capacities.
- 2 The lack of an updated water law is a fundamental challenge that limits or prevents the building of adaptive capacities.** Without a strong legal framework, the necessary regulatory guidance is lacking in key areas, hence reducing the effectiveness of operational protocols and decision-making tools in managing extreme events.

- 3 Since the recent flood and drought crises, strengthening technical and knowledge capacities — an area in which PPCR is particularly active — has become one of the key focus areas of adaptive responses.** Forward-looking transformative adaptation planning is not yet widely evident, indicating significant potential in integrating hydrometeorological, climate, socio-economic, and risk information into decision-making.
- 4 The recent crises have improved the awareness of climate change and water issues among stakeholders, which in turn has generated openness to learning, as well as to shifting behavior and thinking.** Such an environment enables the development and implementation of transformative responses, provided that the spirit of openness and the willingness to learn are sustained over the longer term.

FIGURE 1. TYPES OF ONGOING ADAPTATION PROCESSES IN THE BOLIVIAN WATER SECTOR





RECOMMENDATIONS

The following recommendations seek to address challenges in the specific areas identified below:

- **Preparatory and contingency planning for extreme events.** In order to better prepare and plan for climate threats across sectors, it is vital that relevant authorities establish a strong universal regulatory framework that allows for flexibility and prioritization. This will be immensely helpful for instituting clear operational protocols to manage and coordinate responses.
- **Long-term planning and climate change integration.** Future climate scenarios and future-oriented risk mapping should be incorporated into climate adaptation planning to ensure that responses are forward-looking and flexible. At the same time, financial and technical resources need to be put in place to guarantee the sustainability of these plans. Additionally, it is important to improve decision-making in the face of deep uncertainties; recognize the importance of flexibility in systems and structures; as well as explore low-regret adaptation options, such as green spaces in high-risk land areas, which can bring immediate benefits to communities, irrespective of future climate variability and change.
- **Cross-sectoral governance.** Projects framed by broad intersectoral development objectives of improving livelihoods, ecosystem productivity, and health should be established. Furthermore, it is important to provide the necessary adaptation planning tools to support cross-sectoral coordination in governance.
- **Hydrometeorological and climate services (HMCS).** HMCS services and systems can be enhanced by ensuring that related data and associated platforms are tailored to sectoral needs and support the establishment of a national research agenda that formalizes the collaboration between academia and the state. Moreover, it is critical to enable the integration of traditional knowledge into HMCS, as this would allow local communities to be perceived as active participants in adaptation projects, rather than solely as benefactors.
- **Learning and innovation. Various types of programs and processes should be set up to capture learning and promote innovation.** Some measures include establishing a platform to institutionalize learning from recent water crises; scaling up positive experiences and mechanisms related to integrated planning and community-based adaptation at the micro-basin level; and investing in research and development for irrigation efficiency.
- **Building knowledge, awareness, and engagement on the ground.** To improve cooperation between civil society and the state, it is critical to build awareness of the value of water as a resource; mainstream climate change and environmental education; change perceptions and mindsets about risk; as well as recognize that traditional knowledge is key to adaptation planning.