

Annex 1. Project Outputs

Component 1: Generation and exchange of knowledge, technology transfer and institutional strengthening
Component Result: Knowledge and capacity has been generated, strengthened, and transferred in relation to water security in the context of vulnerability to climate variability and change on water resources in selected sectors.
Output 1.1: Multiple studies assessing the vulnerability of water resources to the impacts of CC/CV are generated.
Colombia
Two participatory assessments to compare water-use efficiency: (i) a technical document identifying traditional agricultural practices and adaptation methods for staple crops such as onions and potatoes, as well as silviculture and other production systems, prepared in a participatory manner; and (ii) a water-use efficiency analysis prepared for the production systems associated with the basin.
Bolivia
Study of low-risk CC/CV scenarios in Cochabamba using two-dimensional modelling to identify risk areas for flooding and landslides in watersheds
Guidance for determining maximum flood areas and delimitating safety zones in rivers incorporating CC/CV factors
Ecuador:
Studies on climate vulnerability for each of the two selected hydroelectric projects and modeling exercises for the CC/CV impacts of both projects
Two technical document analyzing gaps and needs of pilot projects
Two workshops and two technical meetings on the sustainable management of Andean ecosystems
Two environmental management plans
One CC/CV impact model
Two land-use plans (PDOTs)
Two local development strategies
One enhanced regulatory framework and two sector policies
Peru
A CC/CV vulnerability study focusing on small-scale irrigation projects, including a cost estimate of CC/CV-related damage to existing projects
Output 1.2: Studies to help understand the vulnerability of relevant ecosystems in selected water basins to the impacts of CV/CC are generated.
Colombia:
An updated analysis of territorial vulnerability and ecological structures based on ecosystem services
Output 1.3: Activities to promote transfer of generated knowledge and capacity to relevant stakeholders take place, including at least 20% women
Colombia
A document detailing the approach of the technical assistance program developed in coordination with local entities and service providers in line with Law 1876 of 2017 and Law 893 of 2017, including:
(i) two brochures focusing on the hydrological cycle and CC/CV projections; and ecological structures, ecosystem services, and vulnerability
(ii) Four events to disseminate information on the agro-climatological management of production systems and providers of technical assistance

Bolivia
Curriculum content on CC/CV impacts for inclusion in postgraduate training programs incorporating factors affecting threats (hydrological and hydraulic models), risk management, management of urban runoff, urban drainage systems, etc., developed through a research agreement between the Universidad Mayor de San Simón and the Universidad Mayor de San Andrés
At least 15 professionals formally trained
At least six events held for project stakeholders to exchange information
Ecuador
A strategy for disseminating knowledge generated by the project, including at least 13 dissemination events
Peru
A training module for developing investment projects that incorporate risk analysis and climate-change adaptation measures designed and incorporated into the national investment system (INVIERTE.PE) training plan and disseminated to operators and other interested parties
At least three knowledge-sharing events and three information dissemination spaces (e.g., websites) that present project information
Component 2: Mainstreaming of climate change considerations into policies, strategies, programs, and other relevant management instruments
Component Result: CC/CV considerations have been included in a series of relevant management instruments for the selected sector in each country
Output 2.1: National & Municipal level instruments that take into account CC/CV considerations for Storm Drainage Management in Bolivia
Upgraded technical regulations for the design of storm-drain systems that incorporate CC/CV in the preparation of public investment projects
One solid-waste management guide that incorporates mechanisms for cleaning storm drains
One industrial solid-waste management guide for the field of civil construction
A storm-water drainage master plan for the metropolitan area of Cochabamba
Output 2.2: Instruments for planning territorial, environmental, and agricultural development and investments include CC/CV considerations in Colombia
Gender approach study for Colombia finished
Guidelines, information and methodologies that support the inclusion of CC/CV criteria in environmental management planning instruments, especially those related to the formulation or adjustment of POMCA (Planes de Ordenación y Manejo de Cuencas Hidrográficas), POT (Plan de Ordenamiento Territorial) and PUEAA (Programas de Uso Eficiente y Ahorro del Agua, PUEAAs)
Lake Tota Basin POMCA updated
Three General Technical Assistance Plans (Planes Generales de Asistencia Técnica, PGATs)
A Environmental Management Plan for Paramos for Tota (<i>Plan de Manejo Ambiental para Páramos</i> , PMAP)
Output 2.3: Design and Management instruments relevant for the hydroelectric sector and for the conservation of watersheds and fragile ecosystems incorporate CC/CV considerations in Ecuador.
Four technical procedures and/or administrative processes for hydroelectric firms, utilities, regulators, and other relevant agents that include CC/CV considerations
Strategies, plans, and programs relevant to the hydroelectric sector or to the management of water basins and fragile ecosystems, which are aligned with relevant development strategies and zoning plans and reflect CC/CV considerations
Three technical workshops

Two watershed management plans
One protected-area management plan including technical standards and guidelines
Two defined landscapes areas in which enhanced sustainable management practices will be implemented
Three methodological guidelines or similar instruments for including CC/CV considerations in the design of hydroelectric projects
Four new or updated guidelines or technical regulations that enable the inclusion of CC/CV considerations in the design phase of hydroelectric projects, including issues related to water security, conservation, and the management of water basins
Output 2.4: Methodological instruments and relevant technical standards for including CC/CV considerations in public investment projects related to small-scale irrigation in Peru.
Guidance for small-scale irrigation projects that directly addresses CC/CV considerations
Gender and climate change, intergenerational and intercultural plan (transversal approaches)
Sectoral technical regulations for small-scale irrigation that incorporate CC/CV-related risk management
Component 3: Designing and implementing adaptation measures in priority sectors
Component Result: Pilot CC/CV adaptation measures and investments validated and implemented in the drinking water and basic sanitation sector, the environment and agriculture sector, the hydroelectric sector, the minor irrigation sector, and in watersheds and fragile ecosystems in one or more of the project countries.
Output 3.1: Adaptation investment projects to protect water recharge areas and increase the resilience of storm drainage in selected micro-basins in Cochabamba, Bolivia
A pilot adaptation project with at least 30% participation by women designed and implemented to improve storm-water drainage control in each of the two selected areas of Cochabamba, including adequate M&E systems
A project on using reforestation as a river-management technique to protect water sources, promote soil stabilization, and mitigate the impact of carbon emissions
A project on strengthening resilience through education and awareness about integrated solid-waste management with a focus on storm-water drains
Experiences and lessons learned from the implementation of the AICCA-Bolivia project consolidated, edited, and prepared for publication
Output 3.2 Adaptive practices that increase the resilience of agricultural productive systems designed and implemented in Colombia.
Adaptation activities (number to be determined) to improve the resilience of agricultural productive systems designed, implemented, and validated, along with adequate M&E systems, including: (i) activities to promote transparency and accountability at the community level; activities to protect watersheds (e.g., monitoring climate and hydrology, reforestation and restoration of riverbanks, silvo-pastoral practices, rehabilitating water-recharge areas, etc.); and (ii) activities to support the adaptive management of agriculture production (e.g., to improve productivity and water efficiency)
A technical assistance program implemented to provide training to 720 families in the Tota area in watershed protection practices and to 2,510 families in agricultural practices
Output 3.3: Adaptation activities that contribute to increasing the resilience of the selected hydroelectric projects in Ecuador and improve their capacity to manage risks to climate extremes
Five pilot activities to increase the resilience and response capacity of selected hydroelectric systems to climate extremes designed and implemented along with adequate M&E systems, which may include flow and sediment control, flood management, monitoring of levels and flow rates, and hydro-climatic monitoring, among others
An early warning system (EWS) for extreme weather events covering the supply basins for each selected hydroelectric project

Output 3.4: Adaptation activities that contribute to reducing the vulnerability of watersheds and fragile high-mountain ecosystems, and to increasing the resilience of water provision for the selected hydroelectric projects in Ecuador.
Eight adaptation measures to contribute to the conservation, protection, restoration and recovery of watersheds and fragile high-mountain ecosystems, which may include: improved agricultural practices, improved cattle ranching practices, fire prevention plans and protocols for paramos, etc. Activities will at least include two measures in protected areas (Cayambe Coca National Park)
Two technical workshops to develop sectoral best practices
Two restored ecosystems
30% of cattle moved from paramos
Best practices validated for at least two productive sectors in the intervention areas
Two fire-prevention plans formulated
Two fire brigades established, trained, and equipped
Output 3.5 Pilot small-scale irrigation Public Investment Project (PIP) designed and implemented in Peru
Two or three pilot small-scale irrigation public investment projects that include CC/CV considerations, as well as adequate M&E systems, designed in a participatory fashion and implemented in selected areas