


# Journey towards Water Security

Results to date

## Natural Infrastructure for Water Security Project

September 2021





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Edited by: Forest Trends Association  
RUC: 20603007396  
Av. Ricardo Palma 698, Miraflores  
Lima, Perú  
1st edition, October 2021

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This publication was supported by the United States Agency for International Development (USAID) and the Canadian government. Opinions expressed in this document are solely the authors' and do not necessarily reflect the opinions of USAID or the Canadian government.



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**We have advanced a common vision for natural infrastructure and institutional changes to implement it.**





# SHARED RESULTS

This report presents the principal results to date of the Natural Infrastructure for Water Security Project (NIWS), which were achieved together with a large group of partners. We recognize and appreciate their collaboration and leadership towards a sustainable future. These partners include:

- **Ministry of Environment of Peru (MINAM)**
- **Ministry of Women and Vulnerable Populations of Peru (MIMP)**
- **Ministry of Agricultural Development and Irrigation of Peru (MIDAGRI)**
- **Ministry of Housing, Construction and Sanitation of Peru (MVCS)**
- **National Superintendence of Water and Sanitation Services of Peru (SUNASS)**
- **National Water Authority of Peru (ANA)**
- **National Reconstrucción Con Cambios Authority (ARCC)**
- **Subsectoral Irrigation Program of MIDAGRI, Special Binational Project Puyango Tumbes (PEBPT), Special Project for Irrigation and Hydropower of the Alto Piura (PEIHAP), Special Project Jequepeque Zaña (PEJEZA), Special Project Olmos Tinajones.**
- **National School for Public Administration of Peru (ENAP)**
- **Agrarian Productive Development Program of Peru (AgroRural)**
- **National Institute for Glaciers and Mountain Ecosystems Research of Peru (INAIGEM)**
- **National Forestry and Wildlife Service (SERFOR)**
- **National Service for Natural Protected Areas (SERNANP)**
- **National Hydrology and Meteorology Service of Peru (SENAMHI)**
- **Regional governments of Piura, Tumbes, Lambayeque, La Libertad, Ancash, Lima, Ica, Arequipa, Cusco, San Martín, Moquegua, Ayacucho and Huancavelica**
- **Water Utilities including in particular SEDAPAL (Lima), SEDACUSCO (Cusco), EPS Moyobamba, EMAPA San Martín (Tarapoto), EPS Rioja (San Martín),**



Photo: Edith Lucinda Gonzales Ore

- **SEDAPAR (Arequipa), and EPS Moquegua.**
- **Management Committees of MERESE Moyobamba and San Martín**
- **Watershed Councils of Chira-Piura, Quilca-Chili, Vilcanota-Urubamba, Chillón-Rimac-Lurín, Chancay-Huaral and Chancay-Lambayeque, as well as the Mayo Sub-watershed Committee**
- **Anglo American Quellaveco**
- **Mitsubishi Corporation Foundation for the Americas**
- **Over 147 communities and local populations involved in NIWS activities and projects**
- **Non-governmental organizations (NGOs) that have been working with NIWS including: Nature and Culture International, Descosur, Instituto de Montaña, CEDEPAS Norte, desco, Alternativa, Caritas Peru, Caritas Chosica, Aquafondo and Arariwa**
- **Universities and academic institutes: University of Engineering and Technology (UTEC), the Institute for Nature, Earth**

**and Energy (INTE-PECUP) and Pontificia Universidad Católica del Perú's (PUCP) Master's Degree in Water Resources Management**

- **Professionals and specialists from various public and private entities who participated in the development of studies, tools, plans, projects, and training courses**

These results have been achieved despite extraordinarily complex circumstances throughout the Project, during which we have seen five Peruvian presidents, successive cabinet changes, and several changes in our counterparts at the national, regional and local levels. We now find ourselves in one of the most unique moments in modern history, with unprecedented health, economic and social crises due to the COVID-19 pandemic.

Our achievements to date have been the result of teamwork, adaptive management, and above all a shared commitment with our partners mentioned above, to work together towards the gender equality and water security needed for Peru's sustainable development.





# INTRODUCTION

The droughts, floods, fires and landslides of recent years are tangible evidence of Peru's vulnerability to water and climate risks. Natural infrastructure—such as forests, wetlands, grasslands, shrublands, and moorlands—and traditional practices to conserve water and soils help reduce these risks.

Over the last decade, Peru has garnered international attention for leading a paradigm shift to incorporate natural infrastructure as a central solution to address water risks. “Natural infrastructure” was recognized in the legal framework that governs Peruvian public investments, and the drinking water sector made significant policy and financial commitments to contribute to natural infrastructure conservation -- complementing conventional funding sources for environmental conservation. In 2017, USD 2.1 million (M) was executed in investments in natural infrastructure for water security.<sup>1</sup> From 2014 to 2019, more than USD 30 M of drinking water tariffs collected by water utilities were committed to innovative financing mechanisms for restoring and conserving ecosystem services, called MERESE.<sup>2</sup>

Despite these extraordinary advances, the path to effective conservation of the natural infrastructure critical to Peru's water security was not yet guaranteed. Since 2017, NIWS has been working to chart this path by addressing obstacles and gaps along the way with Peruvian stakeholders, towards a more water secure future.



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<sup>1</sup> Based on an exchange rate of 3.5 PEN to 1 USD.

<sup>2</sup> Benites and Gammie (2021, in press). *Opening the Tap: State of Financing for Natural Infrastructure for Water Security in Peru*. *Forest Trends*.

# The Natural Infrastructure for Water Security PROJECT

**Mission:** Scale-up gender-sensitive investments in natural infrastructure in Peru, as a strategy to regulate water supply and increase resilience to climate change.

**NIWS Consortium Partners:**

- Forest Trends (lead)
- CONDESAN
- SPDA
- EcoDecision
- Imperial College London

**Donors:**

- USAID
- Government of Canada



## Project Lifespan







## Kick-starting the journey

We've developed a solid portfolio of natural infrastructure investments that address water risks

“Connecting the concepts of forests and water was the key to understanding the origin of water. Women possess ancestral knowledge, traditions, and customs about the spirit of water, as well as the importance of seeds and the conservation of life and ecosystems.”

*Josefa Mesía Vásquez, MERESE  
Committee Leader*

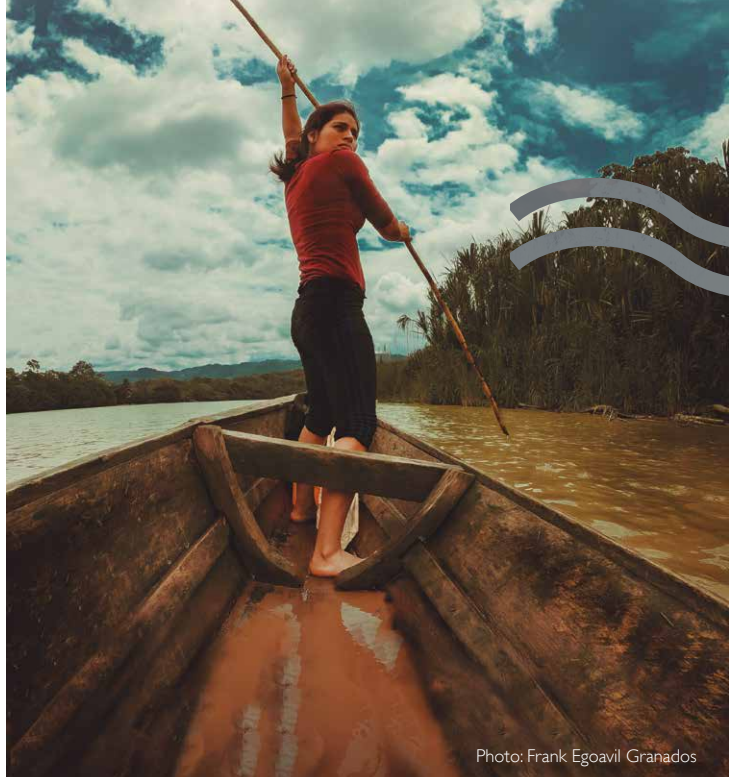



Photo: Frank Egoavil Granados

In 2017, a significant part of the demand to address water risks with natural infrastructure could not be met with solid public investment projects. In addition, capacity gaps and bureaucratic obstacles meant that projects took an average of 4.5 years to begin execution after securing project design approval.<sup>3</sup> These obstacles severely limited the execution of investments in natural infrastructure for water security.

Now, five years later, a robust, diverse portfolio of natural infrastructure projects has been developed with NIWS support—and these projects are beginning to benefit communities on the ground.

<sup>3</sup> Ibid.





**Together with public, private, local and civil society partners, we have developed a portfolio of natural infrastructure investments valued at more than USD 275 million.**

Through technical and financial assistance, capacity-building, tool and information development, and strategic support to key institutions, we have developed a project portfolio that largely responds to the demand for natural water infrastructure in Peru. Our portfolio contains over 50 projects that will implement nature-based solutions to address water and climate risks -- principally through improving water regulation and erosion control.

The portfolio was developed following a demand-driven approach, working with funding sources to design solutions to their priority water and climate risks. We have found that the most important sources for financing for natural water infrastructure in Peru are currently:

**1. Regional governments:** Regional governments have led investments in natural infrastructure for water security for a decade,

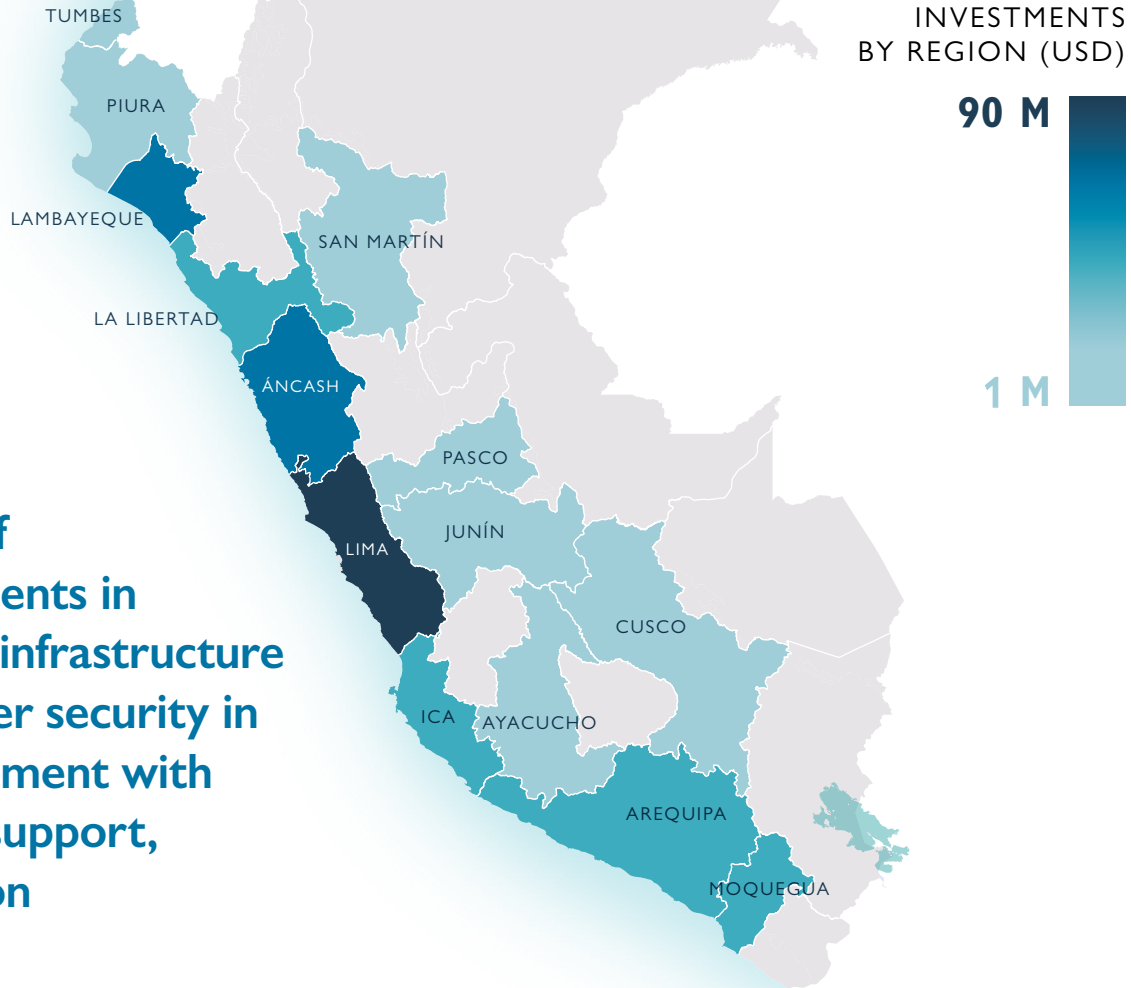
and they continue to be a critical source of public investment in watershed services.<sup>4</sup> The NIWS portfolio includes investments by the regional governments of Lima, Piura, Arequipa, Moquegua, Ayacucho, and Cusco--together worth more than USD 35 M.

**2. Water utilities:** Water utilities correspond to the largest number of projects in development in the NIWS portfolio—the execution of which will be financed with revenues collected from MERESE tariffs. SEDAPAL, Lima's water utility, leads the financing with more than USD 18 M in its natural infrastructure portfolio. With NIWS support, SEDAPAL has already started the execution of its MERESE portfolio in the Carampoma wetlands, and the utility has managed to achieve project design approvals for more than USD 8 M in new investments in Lima's water sources. The NIWS portfolio also includes investments from water utilities serving Arequipa, Moquegua, Moyobamba, and Tarapoto.

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<sup>4</sup> *Ibid.*

INVESTMENTS  
BY REGION (USD)



**Value of  
investments in  
natural infrastructure  
for water security in  
development with  
NIWS support,  
by region**

In USD

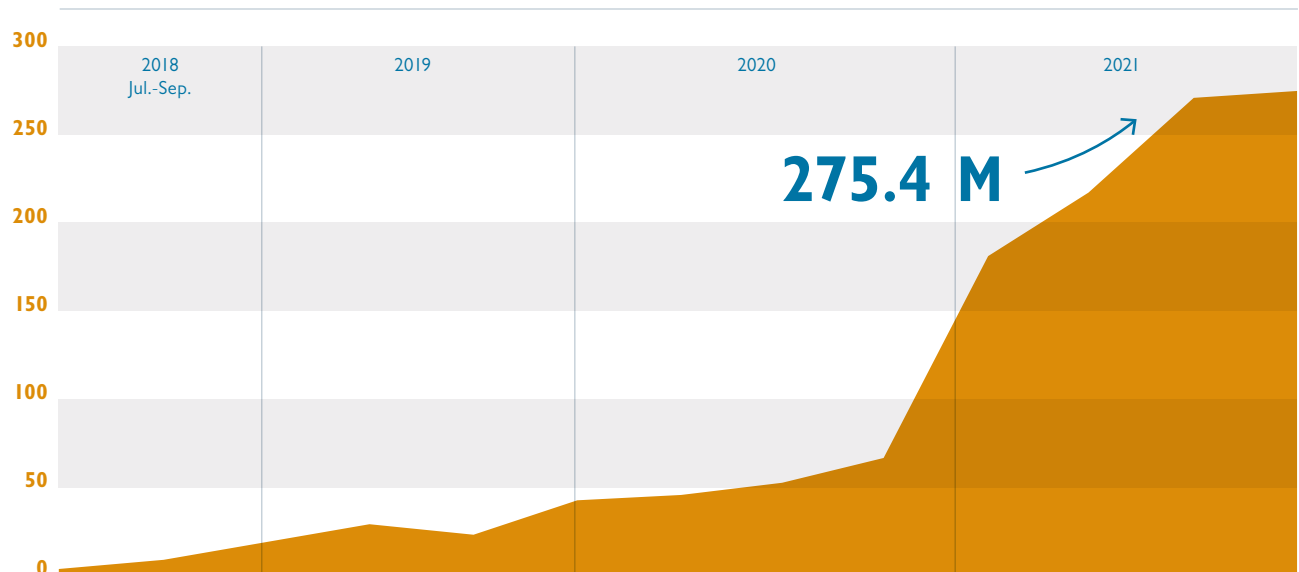




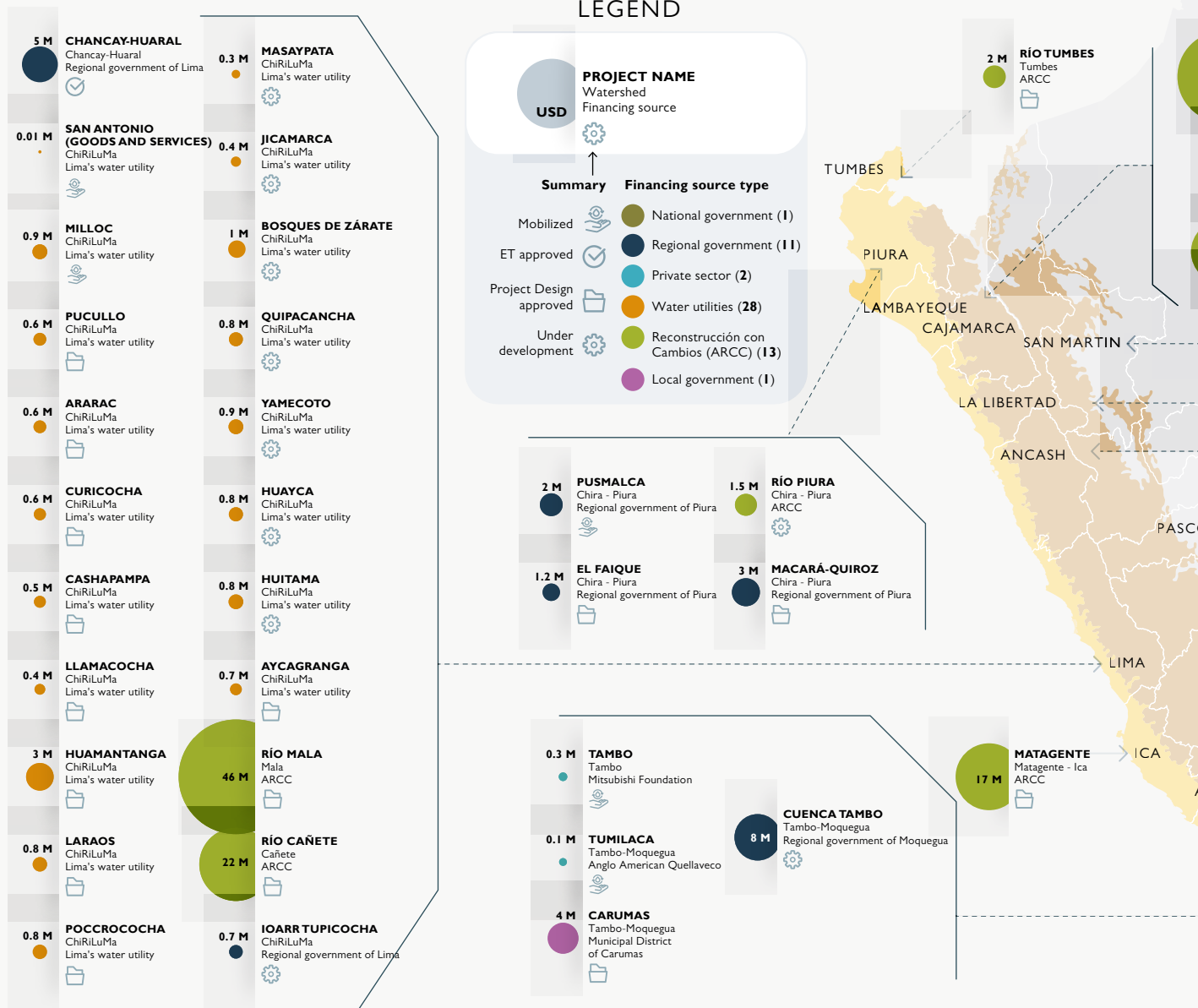
Photo: José Alberto Sotomayor Jiménez

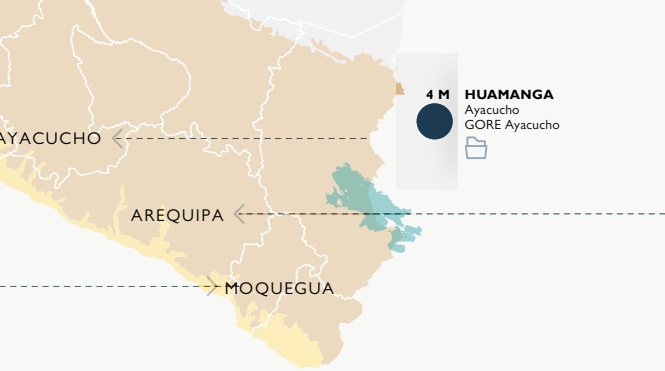
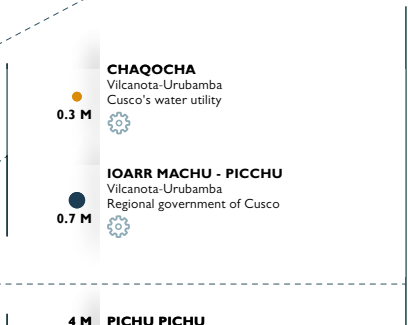
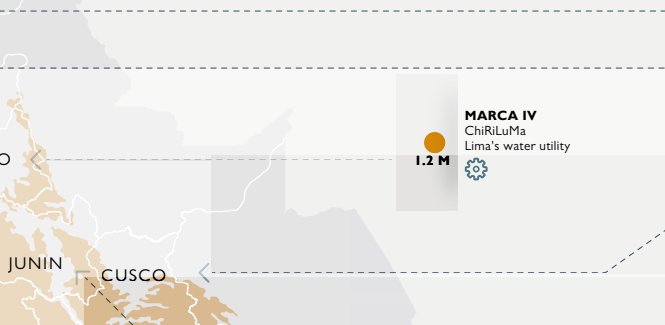
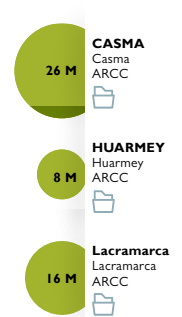
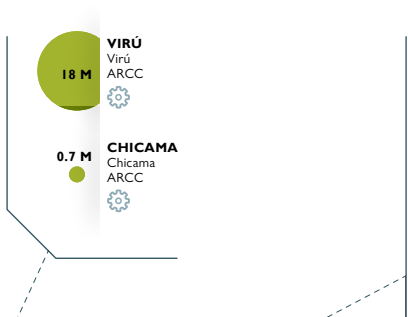
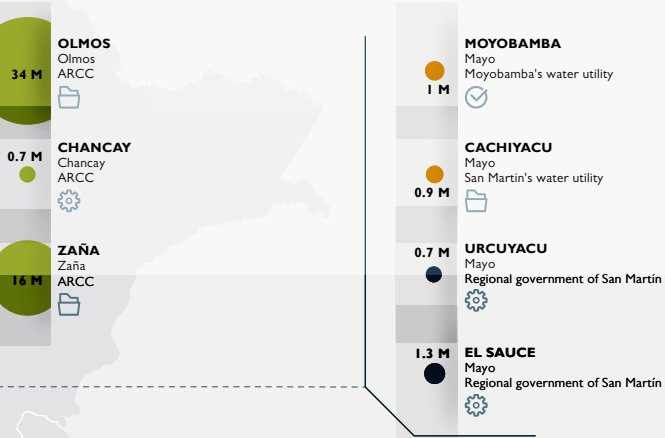
## Growth over time of the value of the total portfolio investments in natural infrastructure for water security in development with NIWS support (2018-2021)

In USD



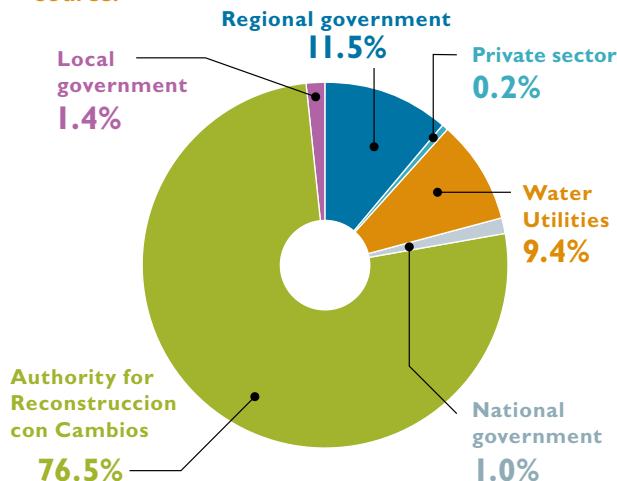
# Total project portfolio under development with NIWS support





**3. Reconstrucción con Cambios:** More than 75% of the value of our portfolio corresponds to this new and powerful source of financing for natural infrastructure, which leads a multi-billion dollar national strategy for disaster risk management and is a pillar of Peru's strategy for a green economic recovery to the pandemic. ARCC has included natural infrastructure measures in its integrated solutions for disaster risk management in 13 vulnerable coastal watersheds; to date, 10 projects valued at more than USD 189 M have secured project design approvals, with more in the pipeline. ARCC investments will be executed within the framework of the Government of Peru's Agreement with the United Kingdom to accelerate and strengthen the program's investments, representing an innovative partnership across countries to bring these solutions to the ground.

**Investments in natural infrastructure for water security under development with NIWS support, share of value by funding source.**



**4. Private Sector:** Although the total value of private investment in natural infrastructure is much lower than that of public investment, the private sector has the ability to act swiftly, thereby helping to accelerate and strategically support larger public investments. For example, in Moquegua NIWS has developed an innovative model of public-private collaboration for natural infrastructure in which the private mining company AngloAmerican Quellaveco is funding a pilot investment that is generating information, momentum, and capacities that will help to accelerate and improve a greater regional portfolio of natural infrastructure funded by the regional government.



Each of these investments are designed with stakeholder communities given the specific local context. Together, the projects in the NIWS portfolio cover more than 147 communities, 20 watersheds and 14 regions of Peru.







Photo: Víctor Idrogo





Photo: José Alberto Sotomayor Jiménez



Photo: Miguel Ángel Arroátegui Rodríguez



Photo: Bruno Bernal

**As a result of NIWS' support, US\$ 196 million of new natural infrastructure investments have received project design approvals, US\$ 6.4 million have secured approval for the project's final technical file, and US\$ 3.5 million are ready for—or have already begun—implementation.**

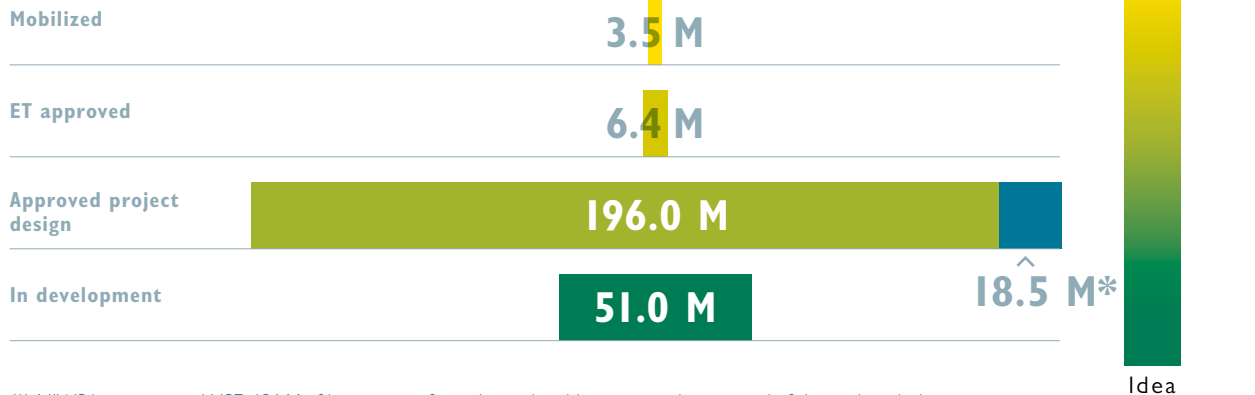
The value of our viable investment portfolio is 27 times the total value of viable investments in natural infrastructure for water security in Peru in 2017.



## Total investments in natural infrastructure for water security with NIWS support

### Value by stage of project development

In USD



(\*) NIWS has supported USD 196 M of investments from the project idea stage to the approval of the project design. NIWS is also supporting USD 18.5 M of investments that had already achieved design approval prior to NIWS involvement.



IN EXECUTION:

## Milloc Project in the Rural Community of Santiago de Carampoma, Lima Region

In March 2021, Lima's water utility began the execution of its first project featuring nature-based solutions for water.





Since 2015 the residents of Lima, Peru have paid an additional fee included in their monthly water bill to the local water utility, SEDAPAL, for the conservation and protection of the watersheds that provide water to the metropolis. In March 2021, thanks to support from Forest Trends and CONDESAN financed by USAID and the Canadian Government, SEDAPAL began the implementation of the first project using these funds. Through this project, approximately USD 800,000 will be invested in 100 hectares, generating 12,000 day jobs and contributing to conservation and local economic reactivation of the Santiago de Carampoma community located at 4,300 meters above sea level in the Department of Lima.

Raúl Marquez Ascencio, a community member employed by the project, said, “The project will benefit Santa Eulalia and the entire community, because the water quality will be better. We want this whole area to be green, to return to what it was before. The community gives the green light and SEDAPAL executes the project. In the future

we will have enough water and crops. It will also benefit Lima, Callao, Santa Eulalia, and the entire lower part of the watershed”.

The vice president of Carampoma, Efraín Villaroel, stressed the importance of his community’s wetlands for downstream residents of Lima, “Lima is a desert. If the wetlands lose their capacity to hold water like a big sponge, the city will not receive the water it needs to survive”.


The Chairman of SEDAPAL’s Board, Francisco Dumler added, “Few times have three national ministers come together to start a project promoted by SEDAPAL that will generate 12,000 jobs. What we are doing is paying the communities that live in this upper watershed to harvest water, in order to sustain the lives of those of us who live in the capital”.

With NIWS support, SEDAPAL has 7 more projects in final stages of development, ready to follow the path to implementation created by the pioneering Milloc project.

# Charting the path along the way



We've generated new tools, knowledge and capacities needed to design, justify, and sustain effective investments in natural infrastructure for water security.



“ ***This course gave me the opportunity to discover natural infrastructure projects and their connection to gray infrastructure, and learn about [project development] tools.*** ”

**Hugo Edgar Ore Guardia**, Agriculture Engineer, participant in the “Development of Natural Infrastructure Investments for Disaster Risk Management” course.

For investments in natural infrastructure to contribute substantially to water security, it's not only about *quantity* but also about *quality*: investments must also be designed and managed to be effective, sustainable, and equitable – especially with regards to gender.

At the beginning of the NIWS project, there was a lack of capacity, guidance, and sufficient knowledge to prioritize, develop, justify, evaluate, and monitor natural infrastructure projects in accordance with these criteria.

Now, project developers, decision-makers, and stakeholders have new tools, information, and capacities that enable them to make better decisions on natural infrastructure.

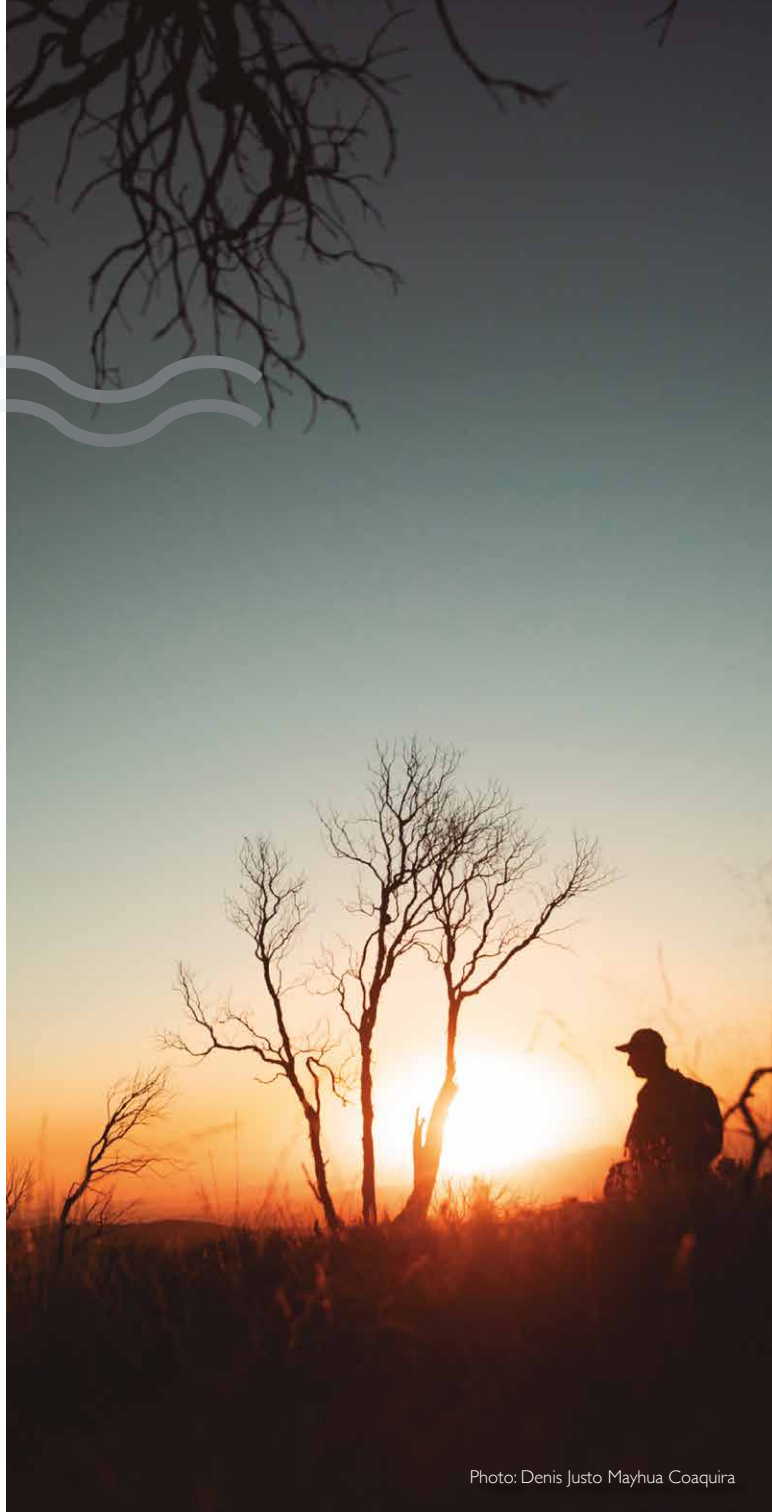


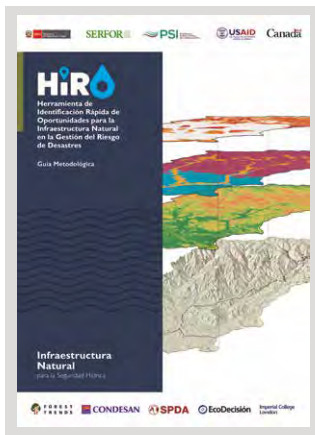
**We've developed new tools that guide the identification, design and management of effective, equitable and sustainable interventions in natural infrastructure.**

NIWS has developed and widely disseminated 10 tools to improve the quality of investments in natural infrastructure and has created an online Project Design Toolbox to make these tools available along with additional resources created by other institutions.<sup>5</sup> More than 16 additional tools are currently being developed and piloted. Three of the NIWS tools most valued by users are discussed below, as identified by NIWS' Use of Information Study carried out in 2021. →

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<sup>5</sup> *The Project Design Toolbox is available at:*  
<https://www.forest-trends.org/caja-de-herramientas>





**HIRO**  
The Rapid Identification of Natural Infrastructure Opportunities Tool (HIRO, for its Spanish acronym) is an innovative GIS tool that uses official information from different

sectors to quickly identify critical areas for NI interventions to address priority water risks within a specific area. Based on this geographic targeting, the tool also provides recommendations for the most appropriate natural infrastructure interventions.

## APPLICATION

Identify and provide basis for NI investments by RCC; regional governments; Watershed Councils; and the Ministry of Housing, Construction and Sanitation.

REACH >  **1,000**  
professionals  
from  
 **36**  
institutions

**#1 most valued tool**, according to the NIWS Use of Information Study (2021).



**CUBHIC**  
The Quantification of Hydrological Benefits of Watershed Interventions methodologies (CUBHIC, for its Spanish acronym) respond to a critical need for the rapid, ex ante quantification of expected hydrological benefits of a natural

infrastructure intervention. They use local data such as precipitation, soil characteristics, and temperature to obtain these estimates for the most common natural infrastructure interventions such as infiltration ditches, reforestation, permeable micro-reservoirs (*qochas*), wetland restoration, and grassland restoration.

## APPLICATION

Estimation of hydrological benefits of projects by water utilities, regional governments, RCC and the private sector; internal use for the NIWS portfolio.

REACH >  **300**  
professionals  
from  
 **43**  
institutions

**#2 most valued tool**, according to the NIWS Use of Information Study (2021).





## Effectiveness, Equity, and Sustainability Scale

The *Guide for the Evaluation of Natural Infrastructure Interventions for Water Security: Effectiveness, Equity, and Sustainability Scale* guides the design, monitoring and evaluation of natural infrastructure

interventions. The document helps project developers to identify opportunities and specific actions to improve the quality of natural infrastructure projects in terms of effectiveness, equity, and sustainability throughout the project development cycle, in a spirit of continuous improvement and learning.

### APPLICATION

Qualitative evaluation of projects, primarily for internal use on the NIWS portfolio.

REACH >



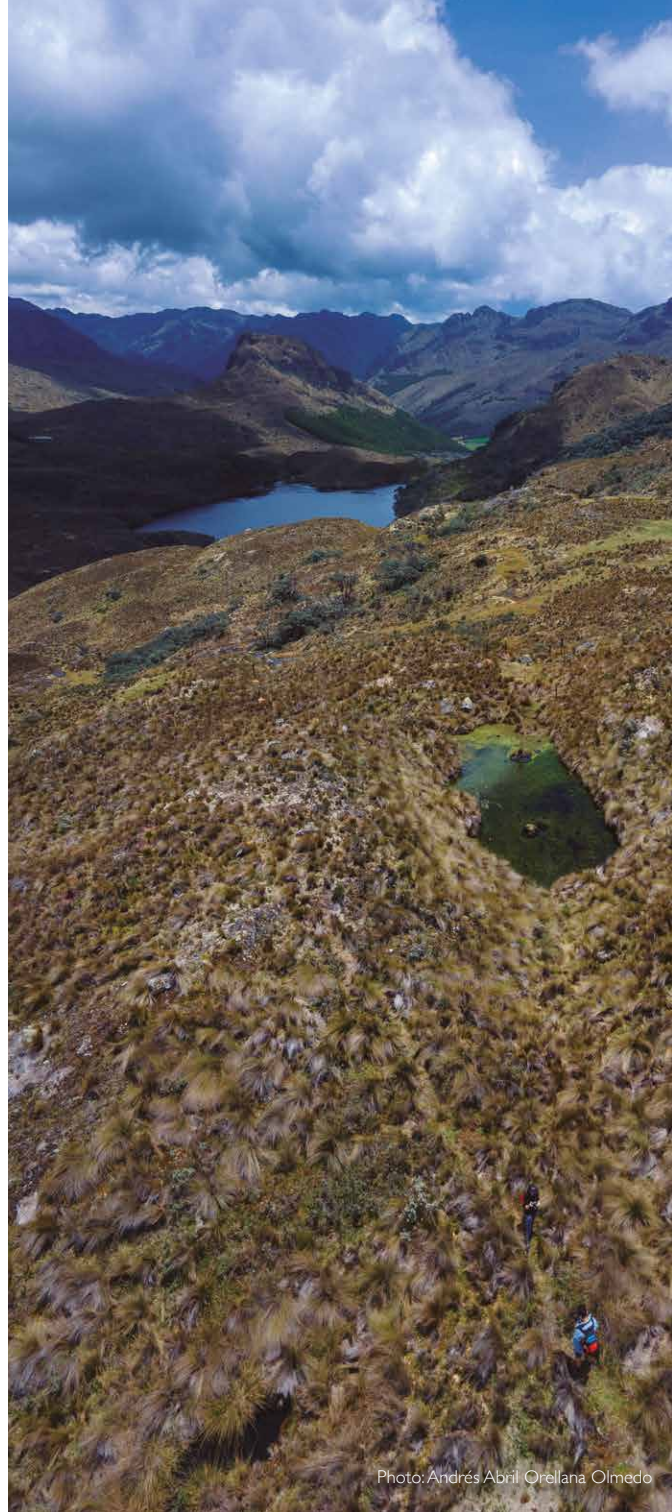
**170**  
professionals  
from



**50**  
institutions including

the National Water Regulator, National Forestry Service, National Water Authority, Lima's Water Utility, RCC, regional governments, and universities

**#3 most valued tool**, according to the NIWS Use of Information Study (2021).



# Roadmap of Tools for Natural Infrastructure for Water Security Project



## Phase 1 Identification

Roadmap to plan investments in ecosystems: ¿Investment Project or IOARR?

[CLICK HERE](#)



ICP Guide for the Identification, Categorization, and Prioritization of Degraded Areas

With MINAM



HIRO  
(Tool for the Rapid Identification of Natural Infrastructure Opportunities)

- for Disaster Risk Management (HIRO-GRD)
- for Hydrological Ecosystem Services (HIRO-SEH)

[CLICK HERE](#)



## Phase 2 Design

CUBHIC  
Methodologies for the Quantification of the Hydrological Benefits of Watershed Interventions

- Infiltration Trenches
- Wetlands
- Grasslands
- Forestation
- Qochas (permeable micro-reservoirs)
- Amunas (ancestral infiltration canals)

Methodology, Calculator and Video Tutorial

[CLICK HERE](#)



Guidelines for the implementation of a gender approach in Public Investment Projects in NIWS



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•Pán  
(A  
mo  
Wit



[CLICK HERE](#)

Legal Due Diligence for natural infrastructure projects (worksheet)



Orientations for the selection of actions and technical specifications for Natural Infrastructure



Hydrological Modeling  
Guide for the Design and Evaluation of Natural Infrastructure Projects



[CLICK HERE](#)

Guide for the Evaluation of Interventions: Effectiveness, Equity, and Sustainability Scale



[CLICK HERE](#)

IOARR Guidelines: Investments in Optimization, Marginal Expansion, Replacement and Rehabilitation

With MINAM



Social benefits calculator

**NI** - natural infrastructure  
**NIWS** - natural infrastructure for water security  
**DRM** - disaster risk management

## LEGEND



Published



In progress



### Phase 3 Execution



### Phase 4 Operation

Hydrological  
guidelines for the  
evaluation of  
ecosystems  
(Tropical forest  
ecosystems  
(Andean  
highlands))

with MINAM



Orientations  
for project  
development  
for NI for DRM



Decision Tree:  
Critical route  
for legal and  
land issues in  
NI for DRM



Guide to  
determine the  
area of  
intervention -  
NI for DRM



IMHEA  
Hydrological  
Monitoring  
Protocols



Design guide  
for NI for DRM  
measures

Decision Tree:  
Consistency in  
NI for DRM

Guide for the  
selection of  
plant species in  
investments for  
NI for DRM

Guide for the  
design of  
technical  
assistance,  
capacity building,  
and raising  
awareness  
activities for  
local  
communities

Critical route  
for  
environmental  
certification -  
NI for DRM

Guide for the  
state of  
ecosystems -  
NI for GRD





## We have generated more credibility and clarity for decision makers regarding the water benefits of natural infrastructure interventions.

We have improved the knowledge base supporting natural infrastructure interventions and increased the credibility and confidence in their benefits.

### What Do We Know? policy brief series summarizes the state of the science on natural water infrastructure

NIWS has developed and published 6 meta-analyses of scientific literature on the hydrological benefits of the most common interventions in natural infrastructure including reforestation, *amunas* (ancestral infiltration canals), Andean terraces, and infiltration ditches, and we have disseminated these findings to practitioners and decision-makers. The studies also identify the limits of natural infrastructure and gaps in understanding of its functions, signaling priority areas for future research.

DIRECT DISSEMINATION >  **over 2300**

 **230**  
institutions

 **12**  
countries

 **5,964**  
downloads to date





Photo: Gabriel Rojas Guillén



## Original research provides new evidence on natural infrastructure

NIWS has supported 9 original research investigations on the efficacy and functions of natural infrastructure, one of which resulted in an article published in the prestigious journal, Nature Sustainability. This article describes and quantifies the hydrological functions of a pre-Incan infiltration system (amuna) in the upper basin of the Chillón River; its findings were disseminated worldwide and highlighted by international media outlets such as BBC News and National Geographic.

DIRECT  
DISSEMINATION



Over  
**76**  
people



**40**  
institutions



**4**  
countries



**3,051**  
downloads to date

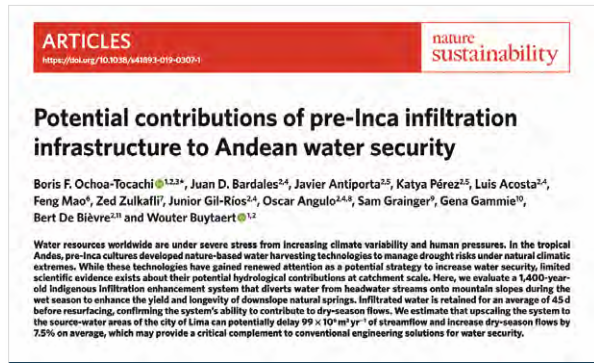


Photo: Forest Trends



Photo: Forest Trends



## Hydrological monitoring network strengthened to address knowledge gaps

NIWS has reactivated the Regional Initiative for Hydrological Monitoring of Andean Ecosystems (iMHEA), a regional network that seeks to increase and strengthen knowledge on the hydrology of Andean ecosystems. In coordination with key information users -- including Peru's national hydro-meteorological service and regulators from the environmental and drinking water sectors -- NIWS has supported iMHEA to develop a roadmap for the initiative during the next decade (2021-2030); to strengthen its coordination through a board of directors in which NIWS partners participate, to convene six general assemblies of iMHEA members; to develop an information system for managing iMHEA's hydrometeorological data; and to update and expand the monitoring protocols that iMHEA partners implement in the field.

Since NIWS has begun supporting iMHEA, the network has grown from 21 to 26 partners and 12 to 22 monitoring sites.



Photo: Condesan



Photo: Condesan





Photo: Carlos Alberto Vergara Manrique de Lara



**We've strengthened capacities of more than 1,500 professionals to develop, evaluate and communicate investments in natural infrastructure for water security.**

NIWS has strengthened the capacities of professionals from 15 regional governments, 72 local governments, 37 water utilities, and 25 consulting firms. Among those trained are 500 public investment project developers and evaluators.



Photo: Zarela Estabridis



## Capacities strengthened by NIWS

	Develop natural infrastructure investments	Identify and design natural infrastructure interventions	Communicate effectively about natural infrastructure	Quantify and monitor the impacts of natural infrastructure
<b>Number of people trained</b>	<b>714</b> (468 men / 246 women)	<b>351</b> (259 men / 92 women)	<b>167</b> (60 men / 107 women)	<b>111</b> (79 men / 32 women)
<b>Key institutions represented</b>	<p>National Water Authority and the National Water Regulator</p> <p>Ministries of Agriculture and Irrigation; Environment; Environmental Enforcement; Housing, Construction, and Sanitation</p> <p>Institutes of Geophysics, Amazonian Research, Glaciers and Mountain Ecosystems</p> <p>Presidency of the Council of Ministers</p> <p>National Services for Meteorology and Hydrology, Forestry and Wildlife, and Natural Protected Areas</p> <p>15 regional governments 70 local governments 25 private companies 12 water utilities 15 NGOs</p>	<p>National Water Authority and the National Water Regulator</p> <p>Ministries of Agriculture and Irrigation; and Housing, Construction and Sanitation</p> <p>Institute of Glaciers and Mountain Ecosystems</p> <p>National Meteorology and Hydrology Service</p> <p>35 water utilities 12 Community Organizations 9 regional governments 6 local governments 3 companies 3 universities</p>	<p>National Water Authority and the National Water Regulator</p> <p>Ministry of the Environment</p> <p>Institute of Glaciers and Mountain Ecosystems</p> <p>8 water utilities 44 Media Outlets 6 NGOs</p>	<p>National Water Authority and the National Water Regulator</p> <p>Ministry of the Environment</p> <p>Institute of Glaciers and Mountain Ecosystems</p> <p>National Services for Meteorology and Hydrology, Forestry and Wildlife, and Natural Protected Areas</p> <p>3 regional governments 17 water utilities 3 NGOs</p>
<b>Allies / organizing institutions</b>	<p>Ministries of the Environment, Agriculture and Irrigation; and the Subsectoral Irrigation Program</p> <p>Lima's water utility</p> <p>Regional governments of Cusco, Loreto &amp; La Libertad</p>	<p>National Water Regulator</p> <p>Ministries of the Environment, Agriculture and Irrigation; and the Subsectoral Irrigation Program</p> <p>Regional governments of La Libertad, Lambayeque, Cusco, Loreto, San Martín &amp; Piura</p>	<p>National Water Authority Gustavo Mohme Foundation</p>	<p>University of Cuenca</p> <p>National Water Authority, and the National Water Regulator</p> <p>Ministry of the Environment</p> <p>National Forestry and Wildlife Service</p> <p>Lima's Water Utility</p> <p>Watershed councils of Chillon, Rimac &amp; Lurin</p>

We have also generated partnerships, courses, and materials that support ongoing capacity building:

- **With ENAP and SUNASS,** we developed and launched a massive open online course (MOOC) for Sustainable Water Management in February 2021. To date, over 5000 professionals from all over the country have participated, 47% of which are women.
- **We launched the Natural Infrastructure Virtual Classroom,** which hosts three original courses developed by NIWS:
  - Development of Investments in Natural Infrastructure for Disaster Risk Management.
  - Public Investments in Natural Infrastructure for Hydrological Regulation.
  - Introduction to Natural Infrastructure Management and Disaster Risk.



Photo: Florella Inés Villanueva Berrospi



Photo: Ángel Arones Cisneros

## Joining efforts to travel together



We have advanced a common vision for natural infrastructure and the institutional changes to implement it.

In order to go far on the road towards water security, we need to go together.

All sectors depend on water resources and natural infrastructure, and all sectors have a role to play in its conservation. However, sectoral silos inhibit potential synergies of multisectoral action and tend to generate obstacles, delays, gaps, and duplication of efforts.

After a multi-year process, we have been able to direct political and public awareness on current needs and build a preliminary multi-sector roadmap for natural infrastructure and water governance. We have also made progress on specific normative and institutional changes, which are already improving the path for those who come after us.

“ *This wetland regulation marks a change from our tendency to ignore ecosystems and the valuable benefits they have for human beings. The approval of these regulations is a result of multisectoral work and positions us well as a country. Thanks to SPDA, CONDESAN and Forest Trends of the NIWS Project for their enormous support in the elaboration of the technical proposal [of Supreme Decree No. 006-2021-MINAM for wetland protection] with ambitious objectives and goals.* ”

*Gabriel Quijandría, former Minister of the Environment.*

**We've increased political and public awareness of the importance and urgency for natural infrastructure and gender equality, thereby growing the demand for equitable nature based solutions.**

**We've reached millions of people with important information about natural infrastructure**

The original content produced by NIWS is reaching more people every year: our social media platforms received over 5.9 million views in 2021 across Facebook, Instagram, Twitter, Youtube, and Flickr. In addition, on at least 6 occasions, our press campaigns have reached over 3 million Peruvians through print media, radio, television, local and national media.



## We've reached over 86,000 key stakeholders through webinars this year

As part of our strategy facing the COVID-19 health crisis, we have strengthened our webinar series featuring over 30 panelists from the public sector, international development agencies, academia, and civil society organizations, covering a diverse range of issues from research to policy.

## We've strengthened capacities in Peru to communicate effectively about natural infrastructure

We have strengthened the capacities of more than 145 communicators and journalists in understanding technical content, as well as providing strategies and tools that support more effective communication on the needs and opportunities for natural infrastructure conservation. 17 reports have been published by journalists supported by NIWS, several of which have received important national awards.

## We've convened leaders at forums that have drawn public attention, generated institutional commitments, and strengthened networks of natural infrastructure champions

- **The National Water Summit (2018)** coconvened more than 122 people (27 women and 95 men), including 39 directors and general managers of 24 water utilities that provide water to almost 50% of the country's population. The Declaration of Piuray was signed, securing

institutional commitments to work on the implementation of MERESE and gender equality.

- **The National Forum for Gender Equality and Water Security (2019)**, convened 386 people (288 women and 98 men) from 16 institutions, 15 water user boards, 15 community organizations, and 8 universities, securing commitments from key water management entities such as MINAM, SUNASS and ANA to mainstream a gender approach in water resource management.
- **The National Forum on Natural Infrastructure (2019)** brought together 307 people (162 women and 145 men) - including national authorities, technical specialists, community leaders, and private sector leaders - who recognized the urgency of concerted action and made agreements to reduce bottlenecks that hinder the mobilization of natural infrastructure investments.





Photo: Luis Daniel Rojas Quevedo

**We've contributed to building a multi-sectoral vision for the protection and restoration of natural infrastructure critical to water security, and we have secured regulatory changes that contribute to realizing that vision.**

### **The OECD prioritized natural infrastructure in its recommendations for water governance in Peru**

The Water Governance and Policy Dialogues, led by the Organization for Economic Cooperation and Development (OECD) and MINAM, convened the public and private sectors, civil society, international development agencies, and academia, in order to build a shared vision and generate recommendations as part of the ongoing process to define national priorities. Through technical contributions, direct participation, and strategic and logistical support, NIWS contributed to the process and final recommendations published by the OECD, which prioritize strengthening and streamlining efforts to conserve and restore natural infrastructure for water security.

### **MINAM approved a regulation that strengthens wetland protection through multisectoral and decentralized management**

In close coordination with MINAM and the National Wetlands Committee, NIWS contributed to the conceptualization, technical and legal development, support and dissemination of the first detailed regulation on wetlands in the country, approved by Supreme Decree 006-2021-MINAM. The new rule introduces specific prohibitions and penalties for the most critical threats to wetlands, including commercial peat extraction previously

documented by NIWS. In addition, it clarifies the roles and responsibilities of various sectors and organizations (including MINAM, PRODUCE, SERFOR, INAIGEM, SERNANP, ANA, OEFA, OSINFOR, regional and local governments) in the management and conservation of wetlands.

### **ANA strengthened multisectoral water management**

In 2018, with support from NIWS, ANA and MINAGRI approved Supreme Decree 012-2018-MINAGRI, which requires participation of a representative of water users in watershed resource councils. This regulation strengthened integrated water resource governance and increased the probability that MERESE funded by water utilities will be included in watershed resource management plans.

### **MINAM approved guidelines to streamline investments in natural infrastructure**

In 2019, supported by strategic technical contributions from NIWS, MINAM approved new guidelines

that allow the use of investments for optimization, marginal expansion, replacement and rehabilitation (IOARR) for natural infrastructure - thereby enabling a new mechanism to channel investments in natural infrastructure that can reduce the time it takes for a project to advance from idea to implementation by up to 80%.

### **SUNASS approved a directive to clarify the route for MERESE within the sanitation sector**

NIWS submitted technical contributions to the Ecosystems Services Compensation Mechanism (MERESE) directive implemented by the sanitation utilities, which was approved by SUNASS with several recommendations made by NIWS in 2019. The directive clarifies pathways for implementation of MERESE projects by water utilities and is the first regulatory instrument to incorporate a gender approach.



Photo: Gabriel Rojas Guillén



## We've strengthened institutions and leaders to address gender gaps in water management.

### We've provided decision makers with access to systematized information on gender gaps

Through the development and dissemination of the "Gender Gaps in the Management of Natural Infrastructure and Water in Peru" report, we highlighted the critical roles that women play in the daily management of water and natural infrastructure, as well as the marked gender inequalities in decision-making regarding these resources. The report highlighted the importance and urgency of working with institutions and leaders in these sectors to address gender gaps that are incompatible with a water secure future.

### Direct dissemination



**575**  
people



**156**  
institutions



**11**  
countries



**1,971**  
downloads to date



Photo: Denis Justo / Mayhua Coaquira

“ For SUNASS, the process of mainstreaming a gender approach has been important. On one hand, it has made existing gender gaps within the institution visible; on the other hand, it has raised awareness that access to drinking water services and sanitation affect women differently. As a result, regulatory proposals have begun to incorporate a gender analysis. The existence of a committed gender working group, with backing from senior management and support from NIWS, ensures the actions proposed in the work plan are executed.

”

*Sonia Vidalón Palomino. Office of Communications and Institutional Image, SUNASS.*

### **We achieved institutional commitments to close gender gaps in the water sector**

NIWS has put gender equality on the national agenda by promoting public commitments for gender equality in the water sector from institutions such as MIDAGRI, MINAM, ANA, and SUNASS. We have consolidated commitments from ANA and SUNASS into concrete actions such as the elaboration of institutional gender diagnoses and Gender Mainstreaming Plans for both entities developed hand in hand with the Ministry of Women and Vulnerable Populations (MIMP).

### **SUNASS approved the first Gender Equality Policy in the Peruvian water sector**

In 2021, supported by NIWS, SUNASS became the third Peruvian institution to approve an Institutional Gender Equality Policy, which contains specific commitments to prevent sexual harassment, prioritize training and development for women, and promote equal pay. It also emphasizes the inclusion of a gender approach in the design and implementation of MERESE by water utilities.



**We increased the recognition of women leaders and strengthened their capacities to influence water management**

Through the development and implementation of the innovative Women's Leadership Program for Water Management, endorsed by the Ministry of Women and Vulnerable Populations, NIWS strengthened the technical and leadership capacities of 72 women authorities of local and regional governments, civil servants of public entities, and young academics involved in water resource management. This group of women leaders have been recognized as "Women of Water," a distinction first established in the 2019 National Forum on Gender Equality and Water Security, organized by NIWS and the Peruvian Government in 2019. The "Women of Water" represent a community of women working towards gender equality and water security in their respective institutions and communities.

**We helped organized women to take action on climate change**

NIWS supported MINAM in establishing the National Committee for Women and Climate Change (CONAMUCC), which aims to integrate gender equality in the development of climate policies in Peru. This commission has wide representation, including 36 women's organizations from the coast, the Andes, and the Amazon. NIWS also worked with MINAM to ensure a representative from women's organizations was included as part of the National Commission for Climate Change.

“ *The Leadership Program has been very enriching, the transfer of knowledge has been very important, and the most valuable thing has been developing proposals to reduce gaps in each of the areas we work in. While it has not been easy to take the course in the context of a pandemic - splitting our time between responsibilities for work, home, and our children, and adapting to the use of technology - we did it with great enthusiasm.* ”

*Lorena Lisboa, from the Technical Secretary of the Chira Piura Watershed Resource Council.*





Foto: Sharon Castellanos Tuesta

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This publication was supported by the United States Agency for International Development (USAID) and the Canadian government. Opinions expressed in this document are solely the authors' and do not necessarily reflect the opinions of USAID or the Canadian government.