

Gender gaps in the management of natural infrastructure and water in Peru

Research Summary



DIAGNOSIS OF GENDER GAPS

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The Peruvian government recognizes that water risk management is an urgent imperative for Peru, and maintaining natural infrastructure – forests, grasslands and wetlands, among other ecosystems that capture, regulate, and filter water – is an indispensable part of a comprehensive strategy for water safety.

The maintenance of natural infrastructure and water management is determined by men’s and women’s roles and the sexual division of labor. Therefore, efforts to improve water management and natural infrastructure require clarity on these roles, vulnerabilities, and participation of the sexes in tasks and decision-making. If we are indifferent to these realities, efforts to manage natural infrastructure will not produce sustainable, effective, equitable changes and could deepen existing inequalities.

This study aims to identify the gender gaps in natural

infrastructure and water management so that: 1) inequalities that could impact interventions to promote the maintenance of natural infrastructure are recognized, and 2) inequalities can be addressed by policies and public entity action at all three levels of government and throughout territories. Gaps were assessed using national statistics and information collected from four learning sites in Huamantanga, Lima; Samanga, Piura; Chalhuanca, Arequipa; and Piuray-Ccorimarca, Cusco.

Our analysis shows significant inequalities in men’s and women’s participation in natural infrastructure and water related decision-making. These inequalities reflect deep, wide gaps in Peruvian society (see Table 1). However, our study also reveals that some trends are changing and has identified opportunities on which to build a foundation for greater equality between men and women.

This summary has been adapted for Forest Trends based on the report: "Gender Gaps in Natural Infrastructure." This work was commissioned by Forest Trends and carried out by a consulting team led by María Isabel Remy Simatovic as part of the Natural Infrastructure for Water Security project.

Table I. Summary: Gender gaps

Gender gaps	Men	Women	
Use of time	Global workload by gender, in hours	66:39	75:54
	Average weekly hours in paid work	50:46	36:27
	Average weekly hours in unpaid domestic work	15:54	39:28
Access to land	Agricultural producers by gender	1,530,568	668,765
	Percentage of operators of 100 hectare land parcels	70%	30%
	Percentage of operators of 20 to 50 hectare land parcels	82%	18%
	Percentage of operators of land parcels smaller than 0.5 hectares	56%	44%
Education	Enrolment rate by sex, 2017 (percentage)	82.5%	82.9%
	Percentage of adolescents, youth, and young adults ³ without primary education, 2017	2%	3%
	Percentage of adults without primary education, 2017	7%	16%
	Percentage of older adults without primary education, 2017	23%	61%
	Average years of study achieved by men and women, 2017 (years of study)	10.3	10.0
	Illiterate people aged 15 years and above (percentage), 2017	3.0%	8.7%
Violence ⁴	Percentage of reported victims of family and sexual violence	15%	85%

Source: Forest Trends. Data Sources: INEI: CENAGRO, ENUT, ENDES; MIMP, ANA, SUNASS

Results

1. Both men and women maintain natural infrastructure through both actions and knowledge.

Women's and men's tasks related to natural infrastructure and traditional "water harvesting" practices in high Andean territories is determined by several fundamental factors. A belief in male superiority results in men being assigned tasks requiring greater physical strength, social recognition, and control of resources. Women, whose tasks involve less strength and support the tasks of men, are considered secondary and are frequently relegated to the domestic roles of care and reproduction. In addition to having limited time available to expand economic opportunities outside the home, women receive little social, let alone economic, recognition. All of this can be seen in Table 2.

1 Source: INEI, National Survey of the Use of Time (ENUT).

2 Source: INEI, IV National Agricultural Census, 2012.

3 Source: INEI, National Survey of Homes, 2018: Childhood (6 to 11 years); Adolescence (12 to 17 years); Youth (18 to 29 years); Young Adults (30 to 44 years); Adults (45 to 59 years); Older Adults (60 years and above).

4 Source: Women's Emergency Center (CEM) 2016-2018.

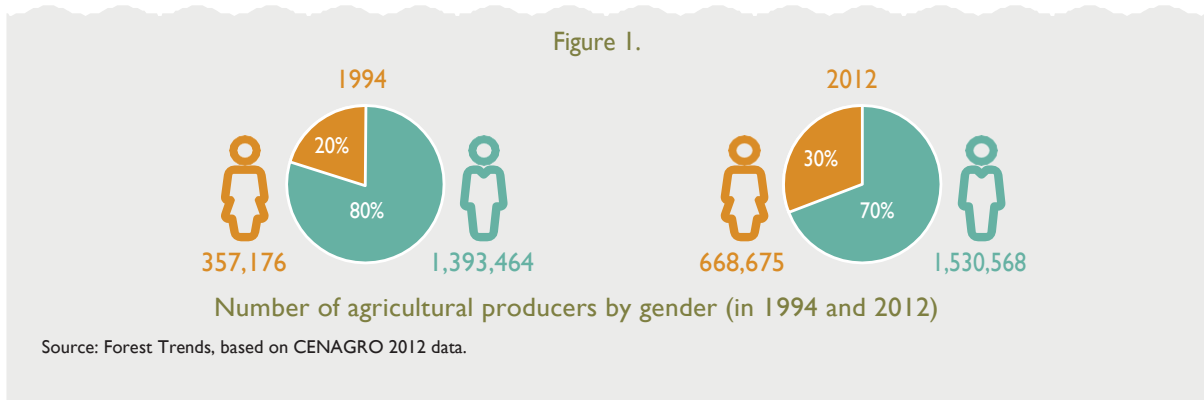
Table 2. Men’s and women’s tasks related to natural infrastructure and traditional “water harvesting” practices in high Andean territories.

Area	Work	Men	Women
Wetlands and natural pastures	Expansion of wetlands	X	
	Irrigation of wetlands and pastures	X	X
	Pasture fertilization	X	X
	Preparing the ground (e.g. moving stones)		X
	Excavation and construction of conduit and irrigation systems for natural grasslands	X	
Infiltration ditches and amunas	Construction of infiltration ditches	X	
	Expansion of infiltration ditches	X	
	Construction of amunas	X	
	Maintenance of amunas		X
Micro-dams and flood-barriers	Movement of earth	X	
	Excavation, formation of flood barriers	X	
	Paving of flood barriers	X	
	Soil compaction for the construction of permeable micro reservoirs and micro dams	X	
	Transporting earth for construction of permeable micro reservoirs and micro dams		X
	Collecting stones for construction of permeable micro reservoirs and micro dams		X
Flora and forest resources	Management of nurseries and reforestation	X	X
	Collection of material from deforested species, nurseries with native species, and repopulation	X	X
	Forest surveillance and patrols	X	
	Cultivation of eucalyptus and pine, sale and disposition of money	X	
Support tasks	Caring for workers during fieldwork		X

Source: Forest Trends, based on primary research at learning sites in Lima, Piura, Arequipa, and Cusco.

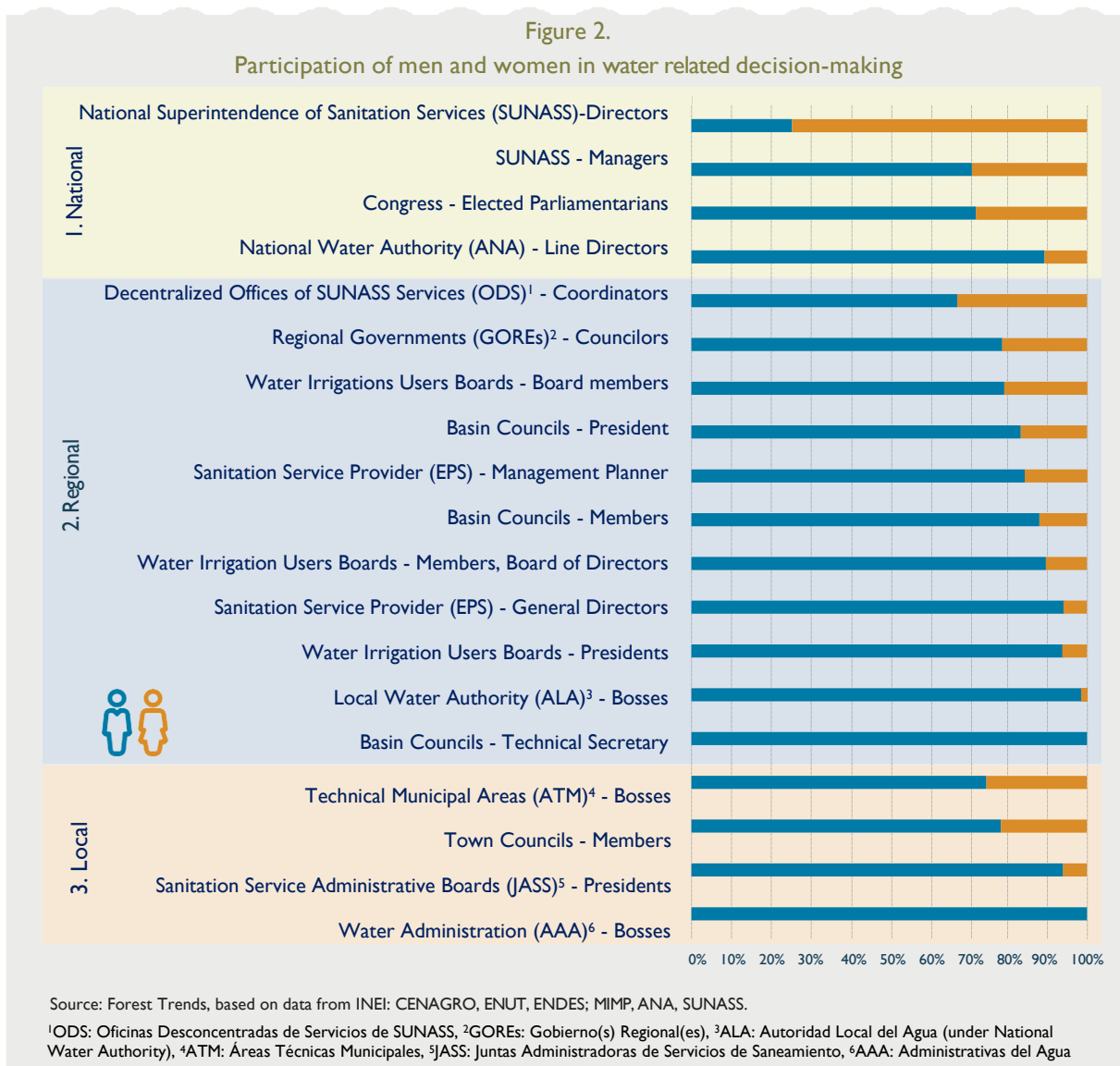
2. There are transformations taking place: women are taking on tasks reserved for men, in addition to fulfilling their traditional domestic roles.

A seasonal male migration is causing traditional gender roles to shift. While men travel to district and departmental capitals for three to eight months per year to generate more income, women represent the family in communal or social organizations, and take over agricultural production and roles related to maintaining natural infrastructure. Between the agricultural censuses of 1994-2012, women’s participation as agricultural producers has increased by 10% (see Figure 1). In the mountains, where there are more opportunities for natural infrastructure to mitigate water risks, there are more women tending the land. Women have taken on this work in addition to their pre-existing responsibilities.



3. Despite their contributions, women are less involved than men in decision-making related to natural infrastructure and water.

Of 20 key water management roles assessed at a national level, 19 had less than 35% female representation, with the majority in the range of 10-20% (see Figure 2). Technical positions are almost always held by men, except those that have legal or social orientations. Administrative positions (such as secretary or treasurer) are almost all assumed by women.



4. Barriers to women's participation in decision-making and benefits of natural infrastructure and water.



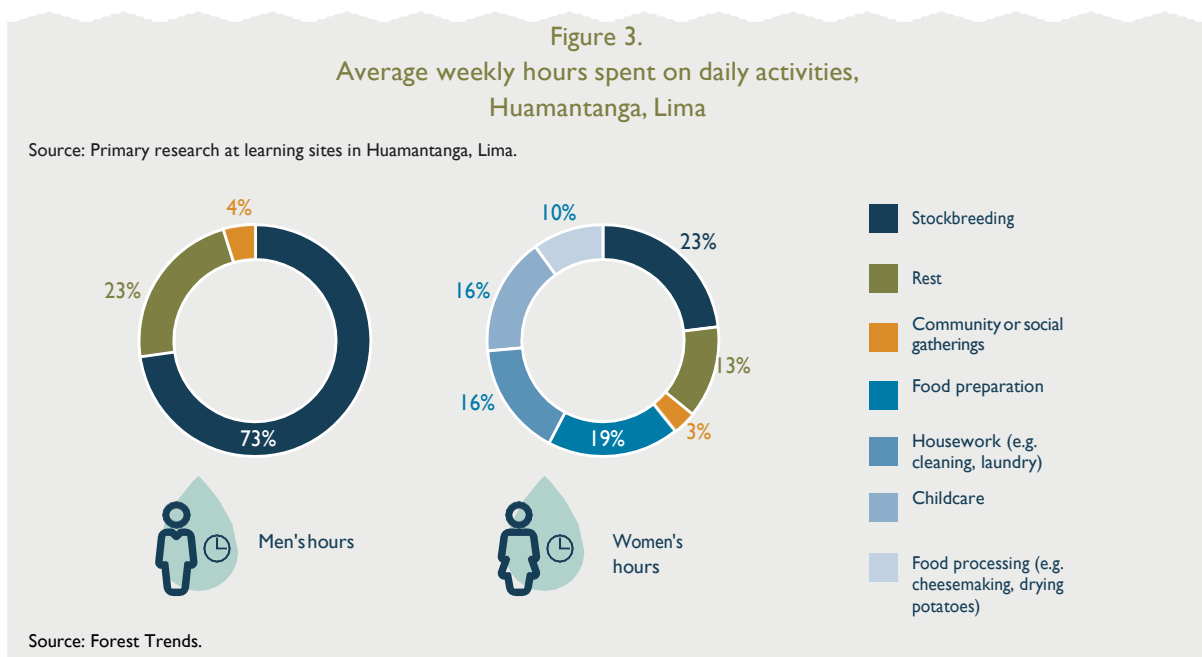
Women have less access to land and water resources.

According to CENAGRO 2012 (National Agriculture Census) data, women maintain very small plots of land. The gender gap is smaller in plots of less than 0.5 hectares and increases with plot area.



Women do more unpaid domestic work and receive less income than men in equal positions.

According to the National Survey of the Use of Time (ENUT) carried out in 2010, women work an average of 75 hours (h) 54 minutes (m) per week. Of those, 36h 27m are dedicated to paid work and 39h 28m to unpaid domestic work. Men work an average of 66h 39m, of those, 50h 46 m are dedicated to paid work and 15h 54 m to unpaid domestic work. This trend is also observed where natural infrastructure is managed in Huamantanga (see Figure 3).



In addition to performing many hours of unpaid labor, women face income inequality for paid work. Nationally, women receive 70% of men's income for the same work. In rural areas, women earn 61% of men's income.⁵

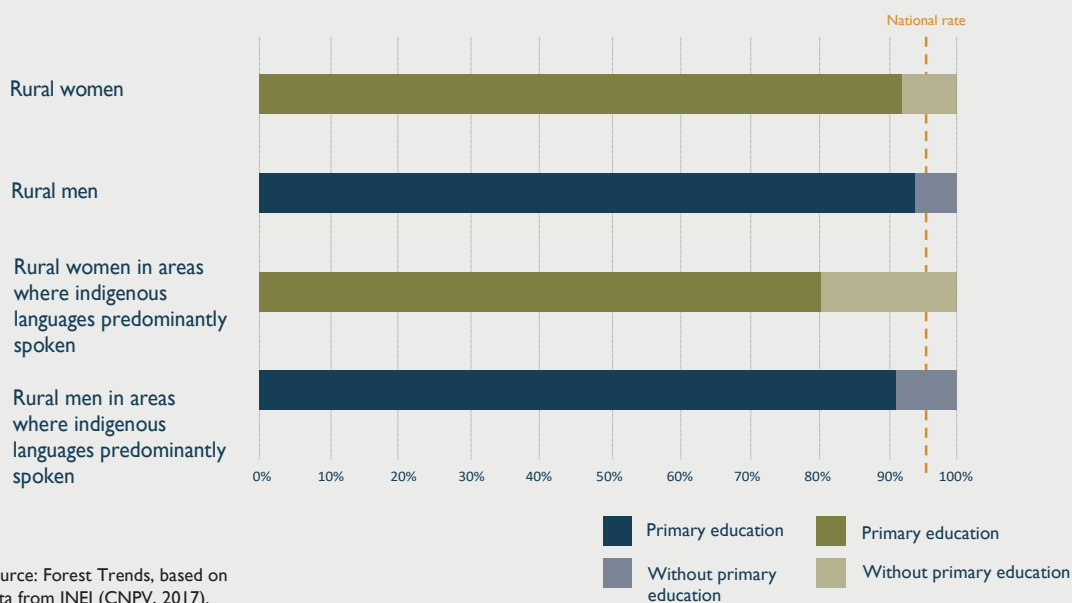
Women receive less formal education than men.



Low levels of education are directly linked to poverty and have a negative impact on access to representation. On a national level, 7% of the population above 15 years old has not had primary education. In rural areas, 10% of the population has not received primary education. This gap especially affects women in rural areas where indigenous languages are spoken – in this group, 20% have not received primary education (see Figure 4).

⁵ Source: INEI - National Survey of Homes (2018).

Figure 4.
Rural population over 15 years old without primary education (percentage)



The illiteracy gap is closing in the younger generation, but the number of illiterate women remains high.

Women suffer gender-based violence

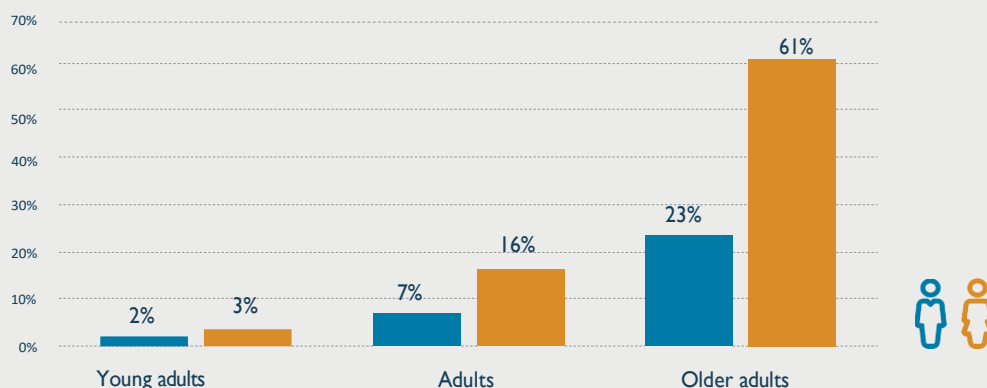


Experiencing gender-based violence limits women's physical autonomy, economic opportunities, and participation in decision-making. The most frequently reported types of violence by the Women's Emergency Centre are emotional abuse, followed by physical abuse. In both cases, 84% of the victims are women, primarily 18 years old and older. Ninety-three percent of sexual violence victims are women, and in this group, 72% are under the age of 18.

5. There are opportunities to help improve women's participation in natural infrastructure and water management.

Certain transformations are contributing to women assuming a progressive leading role in the management of natural infrastructure and water. One such shift is equal access to education. We found that men and women access education equally and that there is a very small difference between the average number of years of education (10.3 years for men and 10 years for women). In young generations, the gender gap in access to basic education appears to have been closed (see Figure 5).

Figure 5.
Rural population over 15 years old without primary education, by age group (percentage)



Source: National Institute of Statistics and Informatics (INEI), National population and housing census 2017. Childhood (6 to 11 years); Adolescence (12 to 17 years); Youth (18 to 29 years); Young Adults (30 to 44 years); Adults (45 to 59 years); Older Adults (60 years and above).

Additionally, Peru has been making progress institutionalizing mechanisms and policies for gender equality for more than two decades. In April 2019, the first national gender equality policy was approved: PLANIG 2012-2017.

In November 2019, SUNASS approved its first gender focused mechanism (CD Resolution No.039-2019), which encourages public sanitation service providers (EPS in Spanish) to more carefully consider the inequity experienced by women and address it in the design and implementation of Compensation Mechanisms for Ecosystem Services (MERESE) implemented with EPS funds.

To better support women experiencing violence, the Ministerio de la Mujer y Poblaciones Vulnerables (MIMP) has developed a new strategy to provide women in rural communities with access to justice.

Finally, with the approval of an amendment to the Law of Rural Communities (Law 30982) in June 2019, the policy formation process must include more equal gender representation – requiring at least 30% representation by the less-represented gender (whether women or men).





Recommendations

For decision-makers in the water sector

1. Value both men's and women's knowledge of natural infrastructure and water, especially those contributing to climate change adaptation.
2. Strengthen the capacity of authorities, officials, and other public service providers to mainstream gender equity approaches in the water sector.
3. Strengthen women's capacity to actively participate in decision-making in the management of water resources.

For developers and supervisors of Compensation Mechanisms for Ecosystem Services

1. Identify the barriers that prevent female participation in design, consultation, and approval of MERESE.
2. Implement mechanisms to ensure women's participation in the design, consultation, and approval of MERESE.
3. Measure benefits and negative impacts on men and women.

For decision-makers on gender equality within different sectors and government levels

1. Implement strategies to share care work and provide services that free women from the burden of unpaid domestic work.
2. Promote parity and alternation in water user organizations, so that the percentage of women in management roles reflects the number of women registered on the board.
3. Recognize and value women's domestic roles – they are central to the support and generation of the workforce.
4. Prevent and sanction sexual harassment and gender-based violence in the home, communities, organizations, and institutions.

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Photos: Carol Pamela Gaspar Villaverde and Juan Carlos Casafranca Sayas

This publication was possible thanks to support from the United States Agency for International Development and the Government of Canada. The views expressed in this document are those of the author and do not necessarily reflect the views of the United States Agency for International Development or the Government of Canada.

This document contains original Spanish acronyms, despite titles being translated.