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76892

Empowering Women in Irrigation Management

The Sierra in Peru

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The Latin America and Caribbean (LAC) region has a unique mix of qualities and challenges when it comes to the environment. It is exceptionally endowed with natural assets, with globally significant biodiversity and valuable crops, and also harbors the world's greatest carbon sink in the Amazon. At the same time, however, the region registers the highest rates of urbanization in the developing world with pollution, overuse of its water and natural resources and detrimental impacts on the health of people, especially the poor, and the environment.

Over the past twenty years, the LAC region has made impressive gains in tackling these issues. It leads the developing world in biodiversity conservation and natural resource management and is at the forefront in reducing urban pollution. The World Bank has often been the partner of choice for those countries in the region that have had the initiative to pioneer innovative policies for environmental protection and natural resource management, strengthen institutions responsible for environmental management, enhance environmental sustainability, and introduce new approaches to water resources management. Such initiatives include fuel and air quality standards in Peru, carbon emission reduction in Mexico, payment for ecosystem services in Costa Rica, participatory and integrated water resources management in Brazil, and new approaches to irrigation management in Mexico.

In this context, it is our pleasure to introduce the Environment & Water Resources Occasional Paper Series, a publication of the Environment and Water Resources Unit (LCSEN) of the Sustainable Development Department in the World Bank's Latin America and the Caribbean Region. The purpose of the series is to contribute to the global knowledge exchange on innovation in environmental and water resources management and the pursuit of greener and more inclusive growth. The papers seek to bring to a broader public – decision makers, development practitioners, academics and other partners - lessons learned from World Bank-financed projects, technical assistance and other knowledge activities jointly undertaken with our partners. The series addresses issues relevant to the region's environmental sustainability agenda from water resources management to environmental health, biodiversity conservation, environmental policy, pollution management, environmental institutions and governance, ecosystem services, environmental financing, irrigation and climate change and their linkages to development and growth.

We hope that this paper, just as the entire series, will make a contribution to knowledge sharing within the LAC Region and globally.

Karin Kemper
Sector Manager, Environment & Water Resources
Sustainable Development Department
Latin America and the Caribbean Region

Empowering Women in Irrigation Management

The Sierra in Peru

Erwin De Nys, Senior Water Resources Specialist, World Bank
Carmen Hidrogo, Anthropologist, Consultant, World Bank
Marie-Laure Lajaunie, Senior Water Resources Specialist, World Bank
Lara Chinarro, Irrigation Specialist, Consultant, World Bank

Abstract

This report tells the story of a Gender Pilot that was carried out in water users' organizations for irrigated agriculture in the Peruvian highlands or Sierra region. It was designed upon the request of Peru's Ministry of Agriculture, with the objective to strengthen the role of women in water management and to improve their condition as agricultural producers. At first, a gender diagnostic was carried out to better understand the different barriers that hinder the attendance and thus equality of participation of women in trainings and meetings. After this diagnostic, a discussion followed about the importance for a community of including women in water management. In response to these diagnostics and subsequent discussions, the water users resolved to set specific targets for becoming more inclusive organizations, and shaped the content and timing of their activities to allow a greater number of women to participate. The Pilot, carried out between 2007 and 2009, improved women's technical skills, self-esteem and position in the water users' organizations, and has raised awareness among the community members about women's specific needs and expectations related to water management for irrigated agriculture. The participatory methodology used in this Pilot was designed with the support of the World Bank Group Gender Action Plan, and is currently being scaled up in the World Bank financed Sierra Irrigation Subsector Project (PSI Sierra).

The Role of Women in Water Management

In Peru, over 75 percent of management positions, at all levels of public and private enterprises, are held by men.[1] In water users' organizations (WUOs) for irrigated agriculture in the Peruvian highlands or Sierra region, the situation is no different. A variety of cultural and structural limitations restrict women's participation in water management in ways similar to what has been observed in other irrigated areas around the world (World Bank 2012).

The aim of this occasional paper of the Latin America and Caribbean Regional Environment and Water Resources Unit (LCSEN) is to highlight, within the context of a Gender Pilot of the Peru Sierra Irrigation Project, how women's different needs were identified to facilitate their access to training and to increase their participation in the management of WUOs.

Women's empowerment can have a great impact on productivity and the economy of a country. As stated in the 2012 World Development Report, gender equity is not only necessary, it is also smart economics (World Bank 2011). Participation of all members of a community in water management has several positive impacts: first, the inclusion of women provides a different perspective on the needs of the community; second, once all stakeholders interested in water are considered, there is less chance of water conflicts occurring; and third, having more people with different views increases the number of ideas and approaches to help solve a problem.

During the 10 years of implementation of the World Bank-financed Irrigation Subsector Project (Proyecto Subsectorial de Irrigación, PSI) on the coastal strip of Peru,[2] it became clear that social and technical barriers for women existed. These barriers hindered the attendance and participation of women under conditions of equality in WUO meetings and training events. The government of Peru decided in 2007 to expand PSI to the Sierra region,[3] also with World Bank financing, with the objective of improving the technical level of irrigation systems and infrastructure, thus increasing the profitability of the agricultural sector. A major objective of the project was to strengthen WUOs, this time incorporating a gender dimension.[4]

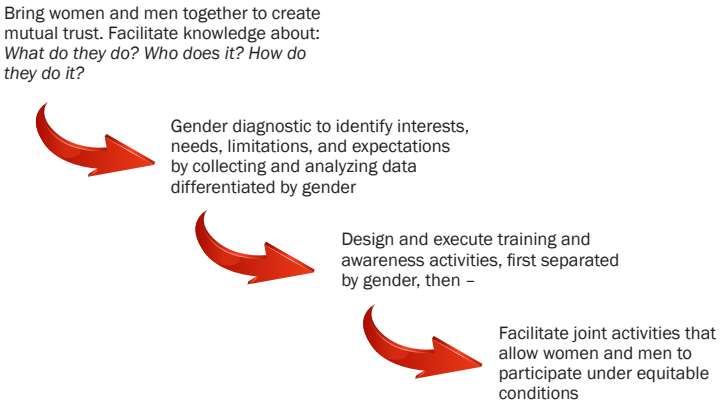
PSI Sierra and its Gender Pilot

Prior to the start of PSI Sierra, a Gender Pilot was carried out from September 2007 to June 2009, involving the WUOs of Chonta and Colca, located in the regions of Cajamarca (northern Sierra) and Arequipa (southern Sierra), respectively. The objective of the Gender Pilot was to contribute toward improving the position of women as members of WUOs and strengthening their status as agricultural producers. The methodology to strengthen women's positions included participatory tools (for example gender diagnostic, workshops, focus groups, and presentations) and demonstration techniques (for example study tours to other regions in Peru, sharing experiences with WUOs in which women had achieved leadership and active participation in management). The strategy promoted the following goals in WUOs:

- Establish clear, precise rules for incorporating women in water management;
- Strengthen the role of women, improving their ability to enhance their self-esteem, degree of integration, and position, and increasing their democratic participation in water management;
- Train women in production issues;
- Highlight and value women's contribution to their household's economy.

The Gender Pilot used a participatory methodology for inclusion of women that started with a gender diagnostic, making it possible to design, validate, and execute training and awareness activities aimed to allow women and men to participate in equal capacities in water management (Figure 1).

Figure 1. Participatory Methodology for Inclusion of Women



Gender Diagnostic

The Gender Pilot conducted in the Chonta and Colca WUOs started with a gender diagnostic that aimed to identify roles, interests, needs, limitations, and expectations by collecting and analyzing data differentiated by gender. The key conclusions were similar in the two WUOs:

- There was a marked division by gender, according to traditional social roles in the Sierra.
- There was a differentiated appreciation of the roles of women and men. Household chores (the duties of "the wife and mother") and contributions to agricultural production were generally considered supporting roles and undervalued compared to men's because they did not generate income (except for cattle

1. CEPALSTAT: Data Bases and Statistical Publications, Economic Commission for Latin America and the Caribbean. Statistics and indicators: gender: women in power and decision-making. http://websie.eclac.cl/infest/ajax/cepalstat.asp?idioma=i.
2. PSI is an entity under the Ministry of Agriculture that has the mandate to promote the modernization of irrigated agriculture in Peru. The World Bank-financed project that targeted irrigation schemes along the coastal area of Peru had an investment of $95 million and closed in 2009.
3. PSI Sierra ($48.33 million) was declared effective in 2010.
4. A video on the Gender Pilot, which preceded the PSI Sierra, can be viewed at http://www.youtube.com/watch?v=-zDB6ZVVw6w.

raising). Furthermore, work by men that required physical strength (men working as unskilled laborers) was appreciated more than work by women that involved some skills (for example milking) and thus there was little recognition given to women's participation in the productive process.

- The representation of men versus women in WUOs was linked to land ownership. The Organization for Economic Co-operation and Development (OECD 2010) found that less than 25 percent of the land in Peru was female-owned. The proportion was increasing, but remained limited due to several constraints, such as higher rate of illiteracy among women, or the fact that women who were not married but in consensual unions had no right to own the land of the household.
- There was a lack of structured skills development programs which prevented purposeful participation by women in WUOs.
- There were generally only a small number of women managers and leaders, and few of them held relevant positions for decision-making. Most held lower positions, and in some cases their involvement was limited to their names being listed on the management committee.
- There were cultural limitations in the two WUOs. Women had insufficient information on WUOs and especially on the rules governing water management. Thus, their opinions were not valued in decision-making forums and they were believed to have nothing interesting to contribute. Often, the men in their families attended meetings on their behalf.
- There were also structural limitations to women's participation. They were less prepared to hold management positions and they felt inhibited to participate. Moreover, WUO meetings were scheduled according to men's time preferences, thus reflecting the WUOs' limited support for women's participation.
- The diagnostic also showed that in some WUOs, male leaders were willing to support a training program that provided equal opportunities.

Presenting and discussing the gender diagnostic with the WUO members led to their increased awareness about the underrepresentation of women in the WUOs and their lack of participation in WUO meetings, trainings, and workshops. WUOs also realized they had no training plans to address the specific needs of female water users. In response to this, WUOs resolved to set specific targets to improve this situation in the short term (table 1).

Table 1. Gender Diagnostic Baseline Values (2009) and Targets (2011) set by WUOs

Baseline values	Targets to reach by 2011
Composition of WUOs: 7 of every 8 members are men; women rarely hold a management position	The WUOs have at least one woman in a relevant management position (President or Treasurer)
20 percent of women attend meetings	30 percent of women attend meetings and present their opinions
Fewer than 10 percent of women participate in training	Over 60 percent of women participate in training; men support women's skills development
Only 20 percent of women leaders perform their duties in WUOs	40 percent of women leaders perform their duties and assume decision-making positions
The WUOs' policies do not include specific conditions for improving women's participation	The 2011 annual plan specifies means of increasing women's participation
Female users are not specifically recognized in WUO activities	Men and women are specifically recognized, thus avoiding exclusions

Source: Gender diagnostic in Chonta WUO, 2009.

Gender Focus in the Participation of Water Users

During the development of the Gender Pilot, various activities were conducted to improve the position of women, including (a) technical training on irrigation management, roles and responsibilities of WUOs, and water regulations; (b) specific "self-esteem" workshops for women to improve their leadership and communication skills, to counteract the common perception of men as being better leaders; (c) workshops with the joint participation of women and men to raise awareness on the contribution and value of the work of female users; and (d) study tours to share experiences with women from Peru's coastal region who hold decision-making positions in WUOs.

Finally, dissemination efforts were carried out, such as the organization of a national "Gender and Water Management" event, in which women leaders presented the experiences gained during the development of the Gender Pilot, disseminated their results to over 200 female water users in Peru, and prepared and distributed the brochure *Los roles de varones y mujeres en las actividades productivas y en su organización del riego* ("The roles of men and women in productive activities and in their irrigation organizations") to acknowledge and value the work of women.

Male leaders and users participated in workshops to raise awareness of the importance of the gender focus in WUOs, and in workshops on water polices with gender equity, in order to define procedures that facilitated the inclusion of a gender focus. Finally, brochures with information on WUOs and water regulations were distributed to reinforce conceptual aspects. Table 2 shows the number of participants in the Gender Pilot activities at the various locations.

It was observed that women restrict themselves (due to shame or fear) from expressing their ideas when men, especially their husbands, are present. It was therefore decided to form separate women's users' committees to help them become leaders and producers, thus strengthening their self-esteem for participation later on in groups comprising both genders. This initiative was well received.

Table 2. Participants in Gender Pilot Activities

WUOs	Men	Women	Total	Water users' commissions
Chonta (northern Sierra)	728	786	1514	La Colpa, Tres Molinos, Carhuanga, Tartar Grande (Chonta and Mashcón)
Colca (southern Sierra)	229	243	472	Yanque, Achola, Pinchillo, Coporaque

Source: Reports of Gender Pilot consultants, 2010.

Conclusion

In different regions of the Peruvian Sierra, the Gender Pilot has made it possible to design, implement, and validate a participatory methodology that promotes the inclusion of women and young people in decision-making forums on the use and management of water resources.

Female irrigation users valued positively their participation in the Gender Pilot. The development of women's skills in water resource management and in agricultural and livestock production (considering individual needs) has had positive impacts on women's income. Likewise, better technical training has made it possible for women to be nominated and elected for management positions in WUOs. Their improved technical skills, self-esteem, and position in WUOs have raised awareness of their specific needs and expectations for water management in the communities involved in the project.

Although the total number of positions held by women in the WUOs has not increased significantly throughout the limited duration of the Gender Pilot, women's voice and representation in WUOs has been strengthened. At present, women hold positions of greater importance for decision making (vice presidents, treasurers, deputy treasurers, secretaries, committee members, and delegates). The position of women in WUOs, as a result of greater training through the Gender Pilot, has evolved and their recognition is increasing among WUO members. At meetings and assemblies, it is reported that they participate more actively and play a greater role in management committees, and their ideas are considered in decision making. During the implementation of the Gender Pilot, rationalization in the use of water was observed, reportedly aided by the greater management capacity of female users and their ability to avoid or resolve water conflicts.

These observations made at the pilot level of only two WUOs will have to be further monitored and analyzed during the implementation of PSI Sierra in the 12 WUOs that the project is targeting in the Peruvian highlands. In order to provide further guidance on critical gender gaps, and to contribute to an evidence-based gender policy for Peru's irrigated agriculture sector, it will be especially important to capture information that is gender disaggregated, including both baseline and project monitoring and evaluation data.

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For more information on the project, please contact: Marie-Laure Lajaunie mlajaunie@worldbank.org and Erwin De Nys edenys@worldbank.org.

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1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
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THE WORLD BANK
1818 H Street, NW
Washington, DC 20043 USA
Telephone: 202 477-1234
Facsimile: 202 477-6391
Internet: www.worldbank.org
E-mail: feedback@worldbank.org