

Technologies for Water Recycling and Reuse in Latin American Context: Assessment, Decision Tools and Implementable Strategies under an Uncertain Future



FP7 - ENV.2011.3.1.1-1

Gender Equality Report



November 2015





OUTPUT SUMMARY	
Project Information	
Project Title:	Technologies for Water Recycling and Reuse in Latin American Context: Assessment, Decision Tools and Implementable Strategies under an Uncertain Future
Project Acronym:	COROADO
Call Identifier:	FP7 - ENV.2011.3.1.1-1
Contract Number:	283025
Starting Date:	01.10.2011
End Date:	30.09.2015
Web-Site Address:	www.coroado-project.eu
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Report Information	
Title:	Gender Equality Report
Work Package:	WP1
Nature:	Report
Dissemination:	Public
Editor (s):	Drs. H. E. Claringbould, Corepage XX
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Date of Delivery	30th November 2015

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Preface

Diversity gives glance to life. Gender equality is about respect for this diversity, respecting legislation about equal rights and especially it refers to the awareness of gender inequalities and instead of ignoring the differences, trying to use them for a better approach and result.

This is the final gender equality report from the COROADO project of the EU 7th framework program. Starting 1 October 2011 and finished 30 September 2015 the gender plan was part of the Description of Work agreed between EU and the project consortium. The partners in the consortium were involved in the execution and the monitoring of the gender equality plan which was designed and guided by the subcontracted party COREPAGE. The information in the report about the gender equality from the research teams and the involved stakeholders is gathered from the project partners. The information exchange was good especially during and after meeting with the project partners and a presentation by COREPAGE in a plenary which was very helpful for mutual understanding of the expressed project work package targets.

Thanks to the project coordinator Christos Karavitis and the project partners for their responsiveness and special thanks to Santiago Reyna from UP Argentina and Jorge Gironas from PUC Chile for facilitating the two MSc students and thanks to Manuel Vanegas, Fernanda Dalcanale and Monica Porto for their study site information. Special thanks also to Simone Verzandvoort, Erik Van den Elsen, Coen Ritsema, Vassilia Fassouli, Nikolaos Skondras, Margreet Zwarteveen and Jurrian Wilmink for their help and inspiration for the implementation of the gender equality approach in COROADO.



Summary

The COROADO consortium objective is to assess water recycling and reuse technologies and provide solutions for water supply and sanitation in rural and agricultural areas in Latin America. Acceptance of reuse water and needs of users have to be understood in the search for these solutions. A gender approach is introduced here, taking into account diversity and gender equality.

The COROADO partners generally assume it self-evident to have men and women in the team or stakeholder group. The gender action plan is to challenge this awareness and stimulate improvement of the gender balance where necessary. All partners responded cooperatively.

On average there is a gender balance in the numbers of the COROADO project staff, and there are opportunities and circumstances at work that help to keep the balance. However within the research teams the men have mostly the higher positions than the women.

At the study sites in some workshops there are very few women stakeholders participating. The roles among the participating stakeholders appear equally divided, women and men can be seen in all levels in the covered topics. However typical roles for men and typical roles for women in the study site countries are being observed.

Gender disaggregated data about water use will help to get insight in possible gender biases and to understand the needs, related to the role that the stakeholders have in the project. The project shows some of these gender disaggregated data. Yet too few for conclusions, the next step would be an inventory of the gendered needs concerning the stakeholder participation and their roles to improve the diversity in the research solutions and the opportunities for gender equality.





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1 Introduction

The objective of COROADO is to assess water recycling and reuse technologies and provide solutions for water supply and sanitation in rural and agricultural areas in Latin America. An appropriate gender balance will help to inform the design and implementation of research. The EU wants all FP7 projects to include gender equality in their Description of Work. The 7th Framework Program (FP7) states that “the integration of the gender dimension and gender equality will be addressed in all areas of research” (EP & CEU, 2006). COROADO has a Gender Action Plan to promote gender equality¹.

Gender equality matters for all parties. Awareness is therefore necessary. Awareness of the differences between men and women of their interests and views as users and researchers in water supply and wastewater treatment, EU wants it and the project needs it to broaden the perspectives. The question is how to get gender equality within the team, the area of research, the institute or University and even on the study site in our search for support in the field.

We talk here about gender equality in organization and minds, about gender consciousness to be practised in mobilization of research team and in stakeholders’ involvement. To operationalize equal rights policies, by flexible attitude and work-life balance options. And about the rights for equal opportunities in work, salary, ownerships and roles. A gender equality approach also prevents the project from solutions that are biased or not appropriate to both genders.

Both genders know more because of their different socialization, by involving them we make use of women and men research and working capacity and practical local knowledge from the different tasks or roles they perform. So making use of diversity and equal opportunities the gender equality approach helps to widen the spectrum and work towards excellent results.

¹ “Equality entails a legally binding obligation to ensure that everyone enjoys equal enjoyment of her or his rights. Equality does not imply treating people who are unequal equally; it does not indicate identical treatment in all cases. Substantive equality requires a focus on all groups in society experiencing direct or indirect discrimination, and the adoption of targeted measures to support these groups when barriers persist, including affirmative action or temporary special measures” (UN 2014a)

Gender equality is a societal responsibility and requires the involvement, actions, commitment and will of everyone for it to become a lived reality for all.” (UN 2014b)

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2 Approach

The COROADO Gender Action Plan is divided into components and additional issues. The components are: Balanced mobilization and career opportunities of women and men; Monitor gender balance and changes; Information sharing and making use of gender neutral language. The additional issues are: Gender appropriate technology and Incorporation of gender needs. See elaborate version in Annex A.

With the components and issues the COROADO Gender Action Plan wants to tackle gender bias in the project when changing the water management and to involve the knowledge gathered by the genders incorporating their different socialization, and roles and needs expressed.

The gender equality was focused on the research teams as well as the stakeholders involved at the study sites. The research teams were asked about their mobilization, their type of position in research, their gender balance and possibilities for flexible time schedules at work and in combination with their lives outside work. The gender neutral language was checked but not operationalized separately. The study site leaders were also asked for the disaggregated numbers of stakeholder workshop participants, and about the way the stakeholders were approached and informed. And about the stakeholders roles.

The components and issues were operationalized throughout the three project periods.

The first project period was used for inventory of the gender balance in the research teams and among the involved stakeholders. All project partners were asked to respond to the questions (see Annex B1) and the first gender report was based on the responds and desk research on worldwide statements and changing perspectives about gender in water supply and sanitation.

The monitoring from the first project period and the presentation were about mobilizing a gender balanced research team and organizing work-home balanced working conditions. For the study site it includes mobilizing a gender balanced representation of stakeholders for the workshops



and collecting gender disaggregated data about the study sites and access to the water supply and the gender equality in the communication with stakeholders.

In the 2nd project period (18-36 months), the monitor continues with the subjects discussed in this first report; the awareness of gender equality in mobilization, stakeholder participation, monitoring, gender data gathering, appropriate technologies and equal working conditions. New focus is put on experiences with information dissemination, networking, and stakeholder gender stories. To gather the information all project partners were asked to answer to the questions and the study site partners were asked to fill some extra information on the study sites. (Annex B2). Another part of the approach is that students from the Wageningen University & Research Centre (Annex C) were asked to do research on gender and water related issues within the COROADO project context. One student went to Cordoba, Argentina and the other to Copiapó, Chile. One resulted into an MSc thesis (Wilmink, 2014). The gender expert joined the second plenary in Cordoba, Argentina, giving a presentation on the gender equality results of the first project period, to meet several project partners and understand the project content and at the same time guide the first student. It was a good opportunity to talk to several partners about gender equality in their work situation.

This report gives the overview of the entire project period (2011-2015). The data were gathered through questionnaires, interviews and research and reported. This final report is based on the experiences in first two project periods and additions gathered with the final questionnaire (Annex B3). The focus is on gender equality and balance in the project teams and among the involved stakeholders. The position of the women and men in the research teams, the roles of the stakeholders in the water supply and wastewater sector and the communication used for mobilization and disaggregated data gathered.



Symbol of gender equality



3 Results gender balance in research teams

The gender balance of the teams gives an insight in the diversity of project and the equal opportunities for man and women. We discuss in this chapter the personnel involved in COROADO, their type of position within the project, their mobilization and working conditions.

3.1 Type of position

The results for the type of position in the second project period and between brackets the first project period are given in the schedule below. A more detailed version is in Annex D.

3.1 Overview type of position COROADO

Type of Position project team COROADO 2015 - 2014 - 2013	Nr of Women			Nr of Men			Total		
	2015	'14	'13	2015	'14	'13	2015	'14	'13
Scientific manager/coordinator	1	3	1	6	6	7	7	9	8
Scientific team leader / work package leader	2	4	5	8	8	9	10	12	14
Experienced researcher (> 4 years and/or PhD holder)	16	13	19	26	28	24	42	41	43
Early researcher (<=4 years and/or PhD student)	11	13	17	10	15	16	21	28	33
Other staff	8	10	9	1	2	6	9	12	15
Total nr of women and men in your team working for the COROADO project, percentage	38 43%	43 42%	51 45%	51 57%	59 58%	62 55%	89 (100%)	102	113

Total staff working for COROADO on average is about 100, starting with 113 in the first project period and ending up with 89 in the last project period. The numbers show an average of 44 (43%) women and 57 (57%) men. This means the total staff has more or less a gender balance. Although less people worked for the project in the last period, it were women as well as men that left, the balance remained similar. From the 13 teams 8 teams are gender balanced. However there is no gender balance in the “Type of position”. Among “early researchers” there is a balance, for “other staff” there are more women. For the functions: “experienced researchers, scientific team leader and the scientific manager”, there are more men than women. This shows a similar “scissors” picture as the average of University staff as measured in Europe and USA between 2002 and 2010 (see in detail Annex D).

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3.2 Mobilizing and keeping the balance

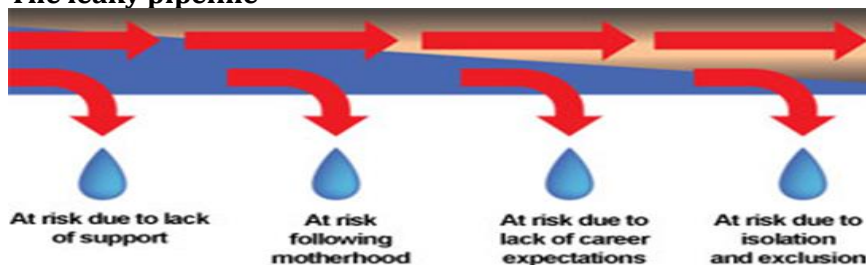
The reasons mentioned having a gender balanced team are: equal opportunity, availability of women, natural process. For several reasons the team gets out of balance because the women leave and there is a lack of availability of women, starting in the engineering schools:

"In our school of Engineering (7.5% of our faculty, i.e. 9 out of 122, are women), (2)² approximately only 20% of our students are women, and (3) only men have shown interest in participating in the project. I hired a woman as researcher/project engineer. Unfortunately she moved back to Switzerland." (7) "Moreover the majority of the people involved with these Technologies in Cyprus are men." (8) In the first period of the project, a female PhD candidate was attached to the project. Unfortunately, she stopped. (9.)

To mobilize a gender balanced research team is one thing, another effort is to keep the balance and prevent the staff from leaving, which appears to be gender biased, explained as the "leaky pipeline".

The leaky pipe line describes the continuous exit of women from Science and Technology (S&T). The Pipeline leaks are at risk due to lack of support, lack of career, expectations at risk following motherhood and due to isolation and exclusion of women. (EU 2009)

The leaky pipeline



Our examples describe these processes, the sample is too small for conclusions, also men leave, but because we have not much women in technology everywhere it is important to keep the ones we have and understand their needs to do their work properly.

Research in Europe about women in research (She figures 2015) concludes:

"Women researchers are particularly under-represented in Engineering & technology and Natural sciences. Between 2005 and 2012, progress towards gender balance has been made in some fields, such as Medical sciences and Agricultural sciences. However, there has been limited change in Engineering & technology and Natural sciences. In 2012, 15 countries were approaching gender balance in Natural sciences, and only three countries in Engineering and technology (Netherlands, Romania and United Kingdom)." (EC 2015)

² The numbers between brackets refer to the project partners, see p. 4



3.3 Working conditions

The project partners were asked about the conditions in the working place. Issues like flexible working hours, part time work and day care are often mentioned by the partners. However not for all the involved COROADO institutes part time work, paternity leave, all year work place nursery, equal payment or even respect is normal at the working floor, they are still desired.

Several working condition are already applied for the partners. For example five mention the flexible working conditions. Some mention national regulations (Norway, Chile):

In accordance with the Norwegian law, a one-year maternity period is offered to women. Our institution follows the national regulations regarding working hours for pregnant women and recent moms (3 months pre and post birth). (7)

Some mention existing institutional regulations (CSIC, USP, and FHNW) about gender equality:

Working conditions in the CSIC team are family friendly: flexibility in the working hours and the possibility of organize and freely plan our holidays. Family friendly working conditions are important in our environment. Our institution has implemented such conditions in a positive way. (3)

This team is managed so to accommodate all personal issues as much as possible. Hours and schedules are very flexible. The University of São Paulo has many benefits to employees that relate to family issues, including health, family leave and grocery cards and bus passes. (6)

The institute of our research group in Switzerland (FHNW, 10) had less women than men and unequal careers comparing women and men, so the institute decided to improve the equality and make a Gender Action Plan <http://www.fhnw.ch/ueber-uns/gleichstellung/> with the following highlights for 2013 - 2016 :

- 5% more women in leading positions and professors
- 5% improvement in the working balance opportunities
- A family friendly high school
- Making a concrete diversity policy for FHNW
- Secure and expand the working balance

These special gender action plans are an attempt to make a difference in a practice that doesn't change easily. Although most partners express satisfaction with their working situation;

We usually work in the morning hours in the University, but there is always the flexibility to work from home in various times of the day. Maternity leave is taking place when needed and this is common practice in Greece. In the University there are not available childcare or elderly care services for working families (1)

There is still room for improvement. However, our conditions are clearly better than the local average (3).



...Additionally our engineers, regardless their gender, receive the same salary, which is dependent then on merits and years of experience. Finally our department of hydraulic and environmental engineering has a high percentage of female graduate students (around 50%). Thus offices and activities in general are very balanced from the gender point of view. (7)

We have flexible hours that permit accommodate special needs for our working mothers (ten). There are other friendly working conditions already regulated (e.g.: maternal leaves, "feminine day", periods for breast feeding, maternal care, etc.). (12)

Still there are some improvements mentioned, this is about child care and elderly care (1), young people on the job who can easily travel (2) part time work and workplace nursery (5).

And from a broader societal perspective:

(...) there are needs to help single parent families (single mothers with one or more children) to take care of their children and their education without leaving behind their progress possibilities (right now is mainly done through the extended family network). Due to the economic recession single parent families are in a much more vulnerable condition. Present situation require both parents (if they are present) to work (and elder siblings too). (12)

And, as the world economic forum explains about the economic success of gender measures in the work-life balance:

While many developed economies have succeeded in closing the gender gap in education, few have succeeded in maximizing the returns from this investment. The Nordic countries are leaders in this area too—all five countries feature in the top 25 of the Economic Participation and Opportunity sub index. This occurs due to a combination of factors: the labour force participation rates for women are among the highest in the world; salary gaps between women and men are among the lowest in the world, although not non-existent; and women have abundant opportunities to rise to positions of leadership. These patterns vary across the Nordic countries, but, on the whole, these economies have made it possible for parents to combine work and family, resulting in high female employment, more shared participation in childcare, more equitable distribution of labour at home, better work-life balance for both women and men and in some cases a boost to declining fertility rates. Policies in some of these countries include mandatory paternal leave in combination with maternity leave, generous federally mandated parental leave benefits provided by a combination of social insurance funds and employers, tax incentives, and post-maternity re-entry programs. (WEF 2013a)

3.3 Overview of the mentioned working conditions

	Already in place	Required
Flexible Work Schedule	ALTERRA, FHNW, NTUA, USP, TDC, SEA, AUA, CSIC, UC	
Generous Family Leave: employees have job security as they attend to planned and unexpected family situations	AUA, ALTERRA, NTUA, USP	
Maternity leave	FHNW	
Paternity leave		NTUA
Working hours for pregnant women and recent moms (3 months pre and post birth).	PUC	
A one-year maternity period is offered to women	BIOFORSK	
Childcare		AUA, NTUA
Elderly care services for working families		AUA
Young workers without families, with possibilities to travel		ALTERRA
Part time work	FHNW	NTUA
Option of unpaid leave	FHNW	
Health leave	USP	
Daycare through summer school break	NTUA	
Tele-working, working from home	NTUA	
Home-based work is possible, including an accordingly designed IT infrastructure	FHNW	
Possibility of organize and freely plan our holidays	CSIC	
Grocery cards and Bus passes	USP	
Equality in decision making	GEOMATIC	
“Feminine day”, time for breast feeding, care, etc.	UC	
Same salary for engineers, regardless their gender	PUC, GEOMATIC	TDC
Respect, communication, teamwork, confidence		TDC, SEA



COROADO UC Argentina 2012

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4 Results gender balance stakeholders

In this chapter we show the gender data we gathered from the stakeholders who participated in the two workshops at the COROADO case study sites. It is about the number of men and women, their roles as stakeholder in this project, about the communication that was used to involve the stakeholders in the workshops and the disaggregated data about acceptance of water reuse that were gathered. Then the impact of the project is reported together with the question on gender appropriate technologies in assessing and provide solutions in water use, reuse and recycling technologies. The final subchapter shows the broader perspective from gender data in the study sites next to the involved stakeholders.

4.1 Stakeholder participation

The workshop objectives are classified into two distinct categories representing both the project participants/hosts/Study Site Leaders and the attendees. The conduction of the workshops should strive to create a two-way learning environment, bringing various groups (e.g. interest groups) and types (e.g. decision makers, practitioners etc.) of stakeholders into a process of collaborative search towards a common goal. (COROADO 2014).

The gender questions were asked separately to the study site leaders or workshop moderators.

The question about participation is about the number of men and women stakeholders that did participate in the 1st and 2nd workshop. The gender balance differs in each study site and per workshop. UC Argentina gave no numbers but say in percentages they had more women involved. USP Brazil has more women than men in the second workshop. PUC Chile and TDC Mexico had more men involved in their workshops. All study sites had both genders involved in their stakeholder participation.

4.1 Overview participation stakeholders

Study site	USP Brazil (6)		PUC Chile (7)		TDC Mexico (11)		UC Argentina (12)	
	women	men	w	m	w	m	w	m
4.1. Participation								
1 st WS *)	9	13	13	18	9	94	55%	45%
2 nd WS	16	12	8	19	3	21	55%	45%

*) 1st refers to first workshop (WS) 2nd refers to second WS



4.2 Stakeholder roles

The role of women and men stakeholders is important to understand when we want to apply changes in the system. Gender equality is about giving the same opportunities to men and women. When we change the existing situation even with only research activities, we want to know if the roles of the involved stakeholders are changing or bring new chances. (Roles are for example: policy makers, water and sanitation managers, land owners or farmers helping monitoring practices, doing needs inventories communication and networking). If we ignore the role division, the changes might lead to missed opportunities and unnoticed gender outbalances. That is one of the reasons to incorporate this gender monitor into research projects.

In respond to the question about the division of roles from stakeholders in water management, Brazil and Argentina made estimations:

USP Brazil: *There is a mix of policy makers, technical people, industry representatives and sanitation industry, for both sexes. (6.)³*

UC Argentina: the roles are already balanced. However

A small imbalance inclined to men when machinery is involved. Producer market also majority men, at the consumer market the majority is foreigner and women. The home tasks are mostly done by women. The number of male and female researchers is balanced. As for political officers or the directors of the agencies, there is a higher percentage of men than women (with a tendency to become more equal), not being this important in the area of water, but little gender difference is more apparent in the area of agricultural activities (usually more male dominated). (12)

From the information one can conclude the same as with the stakeholder participation; women are rather equally involved as men at the UC and USP study site stakeholder workshops at the different levels of the water supply, except from agriculture and technical activities.

PUC Chile (7) gives a clear picture of the gender roles of the women stakeholders in the project, except there are more men involved and less women in the second Workshop compared to the first, it does not show an inequality in the level or types of roles. TDC Mexico show little involvement of women in the workshops, no inequality in type of role (See 4.2 overview below).

³ The numbers between brackets refer to the project partners, see p. 4

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TDC MEXICO 2015 participants of the dss training

4.2 Overview gender participation and roles stakeholders in COROADO Study sites

Study site	USP Brazil (6)		PUC Chile (7)		TDC Mexico (11)		UC Argentina (12)	
	women	men	w	m	w	m	w	m
4.1. Participation								
1 st *) WS	9	13	13	18	9	94	55%	45%
2 nd WS	16	12	8	19	3	21	55%	45%
4.2. Roles								
1 st WS	*About roles USP see text		Less women in 2 nd Workshop		Most men, 10% women involved		*About roles UC see text	
2 nd WS								
	PUC Chile (7)				TDC Mexico (11)			
	women		men		women		men	
-policy makers	1 st : 1 regional 2 nd : 2 local		2 nd : 6 local, 2 national		1 st : 5%		1 st : 95% 2 nd : 2 regional	
-research	1 st : 2 2 nd : 3		2 nd : 4		1 st : 20% 2 nd : 2		80%	
-industry	1 st : 3				1 st : 5% 2 nd : 1		95%	
-water managers	1 st : 6				1 st : 5%		1 st : 95% 2 nd : 12	
-sanitation managers			2 nd : 2					
-technics	2 nd : 3		2 nd : 3				1 st : 100% 2 nd : 1	
- water users	1 st : 2		2 nd : 2				1 st : 100% 2 nd : 6	

*) 1st refers to first workshop (WS) 2nd refers to second WS

4.3 Information sharing and data gathering

“I share a deeply-held conviction that gender equality counts for societies and economies to make progress ... one of the fundamental challenges for tackling all these issues is more and better data and evidence. Before we can solve a problem, we need to understand it.”
(World Bank 2012)

The importance of gathering gender disaggregated data is stressed by UN as follows:

The principles of non-discrimination and equality oblige States to look beyond... disaggregated data are essential in order to fully understand where and how discrimination occurs with respect to access to the human rights to water and sanitation. (UN 2014c)

This subchapter shows gender disaggregated information concerning the acceptance of reuse water supply. Assessing differences in acceptance between men and women could help to adapt and share the research information more specifically. For example if there is less acceptance among women a special meeting could be arranged for them. In the responds however no differences were noticed:

“We could not see differences in the acceptance of WR&R in terms of gender.” (11) *“All stakeholders had the same role on the project (advisory) and any impact will probably also be the same on everyone. The information collected was not classified by gender* (6)

The MSc research in Cordoba showed a gender difference in reuse water acceptance,

“... about the appreciation of water in the type of work and sex of the interviewees. Considering the small amount of interviewees per category, and the error that is created due to that, no differences can be observed except for one. All categories have an equal distribution for the appreciation of water quality, except for the female water users. Even though the sample only consists out of six water users, it is remarkable that all interviewed female water users thought the irrigation water was clean enough.” (Wilmink ‘14)

According to the study site researchers the difference in acceptance is more about the social position or status of temporary immigrant contract workers than about gender difference.

“Research needs inventories about communication and networking”. (12)

TABLE 1: THE APPRECIATION OF CURRENT WATER QUALITY AND QUANTITY

		Total	Type of work		Sex	
		[43]	Tenant [15]	Landowner [28]	Female [6]	Male [37]
Enough irrigation water	Yes	23 %	26 %	22 %	33 %	21 %
	At times	35 %	47 %	39 %	50 %	41 %
	No	42 %	27 %	39 %	16 %	38 %
Irrigation water clean enough	Yes	53 %	64 %	46 %	100 %	44 %
	At times	2 %	0 %	4 %	0 %	3 %
	No	45 %	36 %	50 %	0 %	53 %
Observe changes	No	33 %	20 %	38 %	33 %	32 %
	Seasonally	37 %	53 %	29 %	33 %	38 %
	Annually	26 %	20 %	29 %	17 %	27 %
	Both	5 %	7 %	4 %	17 %	3 %

The “social acceptance” in evaluating water reuse and recycling (WR&R) in the study site, should include different information from men and women (gender disaggregated) to know how to disseminate information about the research progress.

“...knowledge becomes more credible when admitting and accounting for differences between knowers...” (Zwarteveen, 2012).

USP: *“We do not have issues related to water in terms of gender, so the only thing we could contribute is that there is a good balance on all levels of decision making, including the top. Due to the structure of the workshop, we did not get any gender related stories or data, I am afraid. It was more a presentation of the DSS and evaluation, so there was no open discussion other than evaluation of the DSS.” (6)*

TDC Mexico sent their gathered information from the stakeholders about (among other issues) “social acceptance of water reuse and recycling” in 2012 (Annex E), 3 women and 16 men are included. Also here it is not possible to draw conclusions on gendered acceptance since there are only 3 women involved.



PARTICIPANTS OF THE DSS GENERAL MEETING (TDC Mexico 2015)

Although only a few women participated in the TDC workshops the research team shows awareness and make use of disaggregated data which is helpful for future planning and research.



4.4 Project impact on gendered roles

There is no impact from the project on gendered roles according to the study site research teams, except one possibility mentioned by Chile:

PUC: A desalination plant to send 1.16 m³s is currently under analysis, which will provide water for residential consumption and benefit the entire population of the region. It could be with a gender balancing effect if a new desalination plant for water supply will send the water to the public. If the water is sent to the mining industry it may have an unequal effect on men and women, depending on who profits from the industry.

But we do not see any particular impact associated with the gender. Impacts were mostly related to technical aspects, most precisely, about the potential of the project with respect to their specific job or role within the institution they represented. An exemption to this was the discussion with the woman representing the mining sector. She was a private consultant working for the mine who used to be the regional water director. She was really involved in the discussion and we could see how important the topic was to her. We do not think this was a gender issue, but clearly one of the women in the group was the most active person.

TDC: Women are more involved in the academia, they are more involved in research where a more balanced gender equality exist. In Mexico top and middle levels in private business are occupied mostly by men although not exclusively. It is because labour Mexican law protect a lot the pregnancy woman period, very much against the productivity of the companies. It looks similar in government positions although it is changing quickly because of a new law related to gender equality to get any top government position.

Different views and interests give us a better insight in needs of users. Technology development can be improved by understanding the perspectives.

As SEA (Mexico) formulated: "We believe in teamwork and we are very mindful about women and men contributions..."

According precondition for innovating, managing or using the technologies is training. Another factor is personality. (GEOMATIC, Cyprus)

Gender appropriate technologies?



Water and sanitation program (WSP from the World Bank, www.wsp.org calendar 2011)

After the second project period the following question was asked: Could the task division between man and women change after implementing the water reuse technologies? The answers from the study sites were:

Probably yes. Reclaimed water could be used in other uses that in which more woman have participation. (7.)

That's right. By the strong influence that women can have about men on the social and economic effects of families. (11.)

Not really (6) No (12)

About the indigenous knowledge of water supply in the study sites:

We mostly noticed conflicts based on the final destination of reclaimed water. Farmers are against reclaimed water going to the mine, as they feel there is no support to a non-corporate activity as it is mining. About indigenous knowledge: There used to be knowledge in irrigation, but the indigenous community is very minor and lives in the city. (7)

In the region selected to the study case, there is not any indigenous race established. (11) No difference in gender. General concern on reuse water is safety but main resistance is from environmental and health agencies. No indigenous knowledge in water supply. (6)

In all cases there are hardly any differences in gender noted in the acceptance of water reuse and no indigenous knowledge used. Although specifically asked in the first questionnaire, no examples of gender appropriate technologies came up this project. And finally and maybe as a consequence of the mentioned conclusions, hardly any changes are expected in roles and task division of men and women after implementing water reuse technologies.

4.5 Gender perspective study site regions

This subchapter describes the gendered roles or division of tasks between men and women in the study site regions (broader than the stakeholders) as explained by the study site leaders. It shows the context where the research is done. For example the MSc research in the UC COROADO study site on the gender roles at the market place:

The majority of producers on the Mercado de Abasto (landowners and tenants) were men (with a ratio men/women of 7:1). At Mercado Norte, where products that are bought at Mercado de Abasto are sold to customers, the men/women ratio was conversely 1:3 with the majority of fruit and vegetable vendors being from foreign descent (i.a. Bolivia and Paraguay). (Wilmink 2014)

An example from the Mexican study site:

Table below: Gender distribution shows a slight female advantage over male population, 50.3% against 49.7%, and is fairly constant throughout all municipalities (Table 2.34). However, in rural areas, gender distribution is different from the urban sector; male population tends to be higher than female, 52.1% to 47.9% respectively (Table 2.35). This could be due to the migration of young rural females to work in the maquila industry, concentrated in Reynosa and Matamoros (11). (COROADO 2012)

COROADO_workshopREPORT_D.2.1.pdf - Adobe Reader

Total	1,183,846	92.5	95,667	7.5	1,279,513
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Source: INEGI, Population and Housing Census 2010

Table 2. 34. Population gender distribution in the Lower Rio Bravo/Grande basin

Municipality	Male	%	Female	%	Total
Reynosa	303,853	49.9	305,038	50.1	608,891
Río Bravo	59,174	50.0	59,085	50.0	118,259
Valle Hermoso	31,061	49.2	32,109	50.8	63,170
Matamoros	242,234	49.5	246,959	50.5	489,193
Total	636,322	49.7	643,191	50.3	1,279,513

Source: INEGI, Population and Housing Census 2010

Table 2. 35. Population gender distribution in rural sector in the Lower Rio Bravo/Grande basin

Municipality	Population gender distribution in Rural areas(inhabitants)					
	Male	%	Female	%	Total	%
Reynosa	9,973	51.3	9,452	48.7	19,425	20.3
Río Bravo	11,543	51.0	11,069	49.0	22,612	23.6
Valle Hermoso	7,144	50.1	7,108	49.9	14,252	14.9
Matamoros	21,228	53.9	18,150	46.1	39,378	41.2
Total	49,888	52.1	45,779	47.9	95,667	100.0

Source: INEGI, Population and Housing Census 2010

Next to the division of roles between men and women the questions were about men and women landowners living in the study site area and the other about the decision makers in the water supply. And about seasonal work the answers from Chile and Mexico were on both questions respectively: "Mostly men". About the landowners in the Brazil and Argentina case study sites:

We do not have data on this but property in most cases belongs to the couple once they get married. There are no issues with women owning property in Brazil, with or without a spouse. (6) Land is owned by families, and the property is shared in equal parts by both

male and female partners, as the Civil Code requires (marital property belongs to both partners and cannot be sold without the authorization of the other; in case of divorce is shared in equal parts). (12)

The decision making levels in Brazil are expressed as 'fairly balanced':

Hard to quantify in such a large area, and on the many levels of decision-making, but on the high level, the president of the utility company (SABESP) is a female. The governor of the state is a male, secretaries of Sanitation and Environment are males, and Secretary of Agriculture is a female. It is fair to say the other levels are also fairly balanced, taking into consideration some natural preferences.

In Mexico a protective law will change together with new opportunities.

"In Mexico top and middle levels in Private business are occupied by men although not exclusively. It is because labour Mexican law protect a lot the pregnancy woman period, very much against the productivity of the companies. It looks similar in government positions although it is changing quickly because of a new law related to gender equality to get any top government position."(11)

In Chile men are more in private workforce, women in the public sector.

In the Atacama (study site) region, (also famous for the flowered desert as in the picture, after several years of drought).



During 2008 and 2010, in the Atacama Region, several projects were developed, such as "Good Practices in the Workplace program for Gender Equality." It aims to improve participation and position of women in high-tech sectors of the regional economy. However, on average, women income is 39% less than men income. Housekeeping, as a service, is done exclusively by women. The private sector workforce is comprised mostly by men (71% in '10) whilst the public sector workforce Commerce and Social-Community Services is largely comprised by women (65% in '10). In the Mining industry and the Construction sector, physically extenuating labours are done almost exclusively by men. Women force in mining is about 7.1% in Chile...

During harvesting seasons, an external workforce enters the region to work on crop harvesting (locally, this type of workforce is known as "temporeros") lasting for about three months. As an example, 2893 men and 2020 women where hired as temporeros in 2009. The big proportion of women in this workforce is common in the northern parts of the country, women that, while not in season, mostly work on other common jobs or be housewives. (7.)

The gender disaggregated study site information resulted in an overview (see below) of numbers of women and men living in the area, who has access to reuse water in the area, who has the land ownership, who are the decision makers, what regular and what seasonal tasks do they perform?

This project has received funding from the European Union's Seventh Programme for research, technological development and demonstration under grant agreement No 283025

4.5. Overview numbers and roles study site women and men

m= men, w=women

	USP Brazil (6)	PUC Chile (7)	TDC Mexico (11)	UC Argentina (12)
1 Numbers water users	20 million 53% w 48% m	81118 m 80870 w	1,275,562 people	1.4 million
2 Access to re-use water supply	anybody	21567 m 21633 w	52.1% m, 47.9% w	
3a amount landowner m/ w	Property in most cases belongs to the couple once they get married.	Mostly men	Almost all men. Estimate: 5% w, 95% m	Land is owned by families, property is shared in equal parts by both male and female partners
3b decision makers in WS&S m/w	High level: President utility company and the Secretary of Agriculture : w Governor of state, secretary of Sanitation and of Environment: m	Mostly men.	Almost all men. Estimate: 5% w, 95% men	Political officers and directors of agencies: some more men. High level women: the president of the country, the previous rector of the UC and the vice-governor of the province
4a task done by women only	No.	-Housekeeping, as service, is done by w (3.380 in 2010) -public sect. 65%w -Commerce and -Social-Community Service also 65% w	-Value crops more than 50% w Also in-commercial and - industrial sectors Supportive tasks - administrative or - clerical functions	-Home tasks are done mainly by w. -W dominate social interaction in the area.
4b Tasks done by men only	no	Private sector most m (71% in '10) -Mining industry, (w force is 7.1%) -Construction Sectors, almost exclusively men	-Top and middle levels in Private business and - government most occupied by men >changing law	Where more physical strength is needed, men predominate Machinery and vehicle tasks done more by men. Generally field tasks are shared.
4c change in tasks during seasons?	No, agriculture is very limited in the area	External workforce for crop harvesting 2893 m and 2020 w in 2009. Lasting 3 months.	Poor farming activity in winter and summer. Great activity commerce industry in winter	No
4d change in task division?	Not really	Probably yes. Reclaimed water could be used in other uses than in which more woman have participation.	That's right. By the influence women can have on men on the social and economic effects of families.	No



5 Information in perspective

This chapter gives the international and national perspectives of the gender equality related to water supply in UN and EU policies and in the study site countries. There is a subchapter about how the information is disseminated. Also national and local success in gender policy are given to put the results in a broader perspective of time and place.

5.1 Water and gender in UN and EU perspective

Gender equality is not only an effort where the COROADO project works on, it is an insight that helps us to improve life in all aspects and is not yet self-evident. As UN special rapporteur says about gender equality in water supply and sanitation:

“In order to reach equality of water and sanitation service provision, States must work towards eliminating existing inequalities. This requires knowledge of disparities in access, which typically exist not only between and within groups with different incomes, but also between and within rural and urban populations. There are further disparities based on gender and the exclusion of disadvantaged individuals or groups.”(UN 2014c)

The implementation of the Millennium Development goals started in 2000 when the UN world leaders agreed on a vision for the future to uphold the principles of human dignity, equality and equity, and free the world from extreme poverty. The 3rd goal about “gender equality and women empowerment” and especially the issues labour market, family friendly working conditions and political participation. What results were measured and what conclusions are drawn for the follow up after 2015? (UN 2014d)

... One of the indicators that measures gender disparity in the labour market is the time-related underemployment rate. It measures the percentage of employed men and women who are willing, and available, to work additional hours. In most developing regions, the time-related underemployment rate for women is higher than that for men.

...These higher part-time employment rates are associated with a number of factors, including gender inequality in family roles, the absence of adequate and affordable childcare and elderly-care facilities, and/or other social perceptions which play a significant role in the participation of women in employment, in their occupational choices, and in the employment patterns that reinforce gender disparities in the labour market. (...)This calls for more family-friendly policies, which not only encourage a better work-family balance, but also enhance the quality of part-time jobs and improve overall business productivity. The policies include legislation on flexible time, parental leave, other codes of conduct and new working practices, as well as childcare and elderly-care facilities.

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(...)The percentage of women in ministerial posts at the executive level of Government reached 17.2 per cent in 2014, up from 16.1 per cent in 2008. By January 2014, there were 36 countries with 30 per cent or more female ministers. (...)Meanwhile, the percentage of female Speakers of Parliament has barely risen—from 14.2 per cent in 2012, to 14.8 per cent in 2013—suggesting that there may be a glass ceiling for women in some countries.

The UN Secretary General concludes about gender equality and the progress on Millennium Development Goals beyond 2015:

“The evidence is clear: equality for women means progress for all,” which underscored that empowered women lift up society as a whole: countries with more gender equality have better economic growth; “(...) this simple truth must be central as we work to accelerate progress ... and craft an agenda for the years beyond 2015”. (UN 2014d)

In the programmes from the European Union in Horizon 2020, gender is addressed as a

“...cross-cutting issue in order to rectify imbalances between women and men, and to integrate a gender dimension in research and innovation programming and content. (...) The gender dimension is explicitly integrated into several topics across all the sections of the Work Programme. An in-depth understanding of men and women’s needs, behaviours and attitudes contributes to the scientific quality and societal relevance of produced knowledge, technologies and innovations. It also contributes to the production of goods and services better suited to potential markets.” (EC 2014)

And as stated in the Treaty on European Union

“The activities developed under Horizon 2020 should promote equality between women and men in research and innovation, by addressing in particular the underlying causes of gender imbalance, by exploiting the full potential of both female and male researchers, and by integrating the gender dimension into the research and innovation content as well as by paying particular attention to ensuring gender balance, subject to the situation in the field of research and innovation concerned, in evaluation panels and in other relevant advisory and expert bodies in order to improve the quality of research and to stimulate innovation. Activities should also aim at implementation of principles relating to equality between women and men as laid down in Articles 2 and 3 of the Treaty on European Union and in Article 8 TFEU”. (EC 2014)



5.2 Project media

How the information about possible new water reuse practices is made accessible to both men and women. There is the project website: <http://www.coroado-project.eu/>. The first gender report in the download section with deliverables, visible for project participants.

*The information available on water reuse for the general public is still limited. The size of the area does not support direct input and the general public generally does not take interest on details on water issues unless a crisis arises. The media publishes limited information. As for the COROADO project, the **workshop and press releases** were the methods to reach the general public so far. (6)*

*To improve information to women regarding the reuse of water would be necessary to use different information media such as **newspapers, magazines and even TV**. Do it by **technical media** alone makes possible the arrival the information to professional or interest groups involved are mostly men. (11)*

There is no information discriminated by gender. In Argentina, and in the city of Córdoba area, women are totally integrated to the working environment (also in the high levels).

The answers together give a broad picture of what can be done to make the water supply a source of interest for the media. This will be when a new source of water supply becomes available, or when a crisis or a problem in water supply develops, the technical media are useful for interest groups and professionals, but since this could miss other interest groups, the workshop are organized for stakeholders to participate and attract the local media, and for a more general public are the press releases for the newspapers, magazines and TV.

5.3 National and local performance gender equality

About women presidents: In Argentina they had their first female President Isabel Perón in 1974–1976, bringing work and the right to vote for women, than the first elected female President: Cristina Fernández de Kirchner, in 2007 and she was re-elected in 2011. Michelle Bachelet Jeria from Chile was the first woman president in Chile in 2006 to 2010. She introduced the “pay equality legislation” in 2009, guaranteeing equal pay for equal work in the private sector, regardless of gender. She was elected again in March 2014. Isabel Allende was elected President of the Senate, as first woman that is involved in his role in Chile. In Brazil Dilma Vana Rousseff was the first women president. She was elected in 2011. Remarkable because “Since 2012, the number of female Heads of Government is 18, from 193 countries that is less than 10 percent.” (UN 2014e)

The gender equality perspectives for the study sites send by the project teams are given below:

Chile

At country level, propositions made by women movements and organizations in the 1980s decade and the international compromises signed by Chile in gender equality subjects - the most important the CEDAW (Convention on the Elimination of all Forms of Discrimination against Women) in 1989, are considered to be the framework under which the government assumes the compromise of including in the democratization of the country the overcoming of gender inequality.

In a regional level, as a part of the Government plan to promote the decentralization of the country, regional offices of the SERNAM formulate a regional Plan for Equal Opportunities ("Plan Regional de Igualdad de Oportunidades – PRIO") to include gender equality in all regional development plans. (They work a lot with social media, SERNAM)

Chilean Norm (august 2013), (...) it seeks to generate discussion, communication and consensus inside the organizations regarding the reduction of salary breech, equal distribution in high responsibility jobs, eradication of discriminatory practices and protection of maternity, postnatal and such regulations."



Tierra Amarilla cie. for indigenous community ('13) and Día de la Mujer Rural (16 Oct '15) organized by regional government. (Chile, Prodemu FB)

Argentina About increasing amount of women political decision makers in Argentina:

With the election of Menem, in 1991, a new organisation, the 'Consejo Nacional de la Mujer', was created. This organization was ensuring the 'maximum participation of women in all spheres'. But despite all efforts, the increase in the number of women deputies has not been accompanied by a similar increase in the number of women at the top of party hierarchies. Nor has there been a marked increase in the numbers of women in government or the implementation of policies favourable to women. (Ibid.)

In the 2001 elections, women's presence in the Senate increased from 6% to 37%. In Argentina, the amount of women in the parliament successfully increased, and elected women are successfully gendering the legislative agenda, but are yet not successful in gendering the legislative outcomes. (Franceschet 2008, Wilmink 2014)



TDC Mexico preparations stakeholders' workshop

As can be read a lot of effort is put in several ways to improve the basic principal of equality in rights and opportunity. Gender equality is not self-evident and not arising by time, it needs efforts from both genders. It will always be important to be aware of the gaps, and try to overcome them, at work, in the content of the work and at home. Below the brief overview of chapter 8.

6. Brief overview

COROADO 2014	USP Brazil (6)	PUC Chile (7)	TDC Mexico (11)	UC Argentina (12)
Media used	-workshop -press releases	-Contacts social sciences -local women groups -social media	-newspapers -magazines -TV -technical media	- same, no discrimination of information
Women president	2011, Rousseff, 2014 re-elected	2006 Bachelet 2014 re-elected		1974 I.Perón 2007 Fernández 2011 re-elected

Plenary COROADO Argentina October 2013



Photo: Erik van den Elsen



Idem, group session



6 Conclusions

The COROADO consortium objective to assess water recycling and reuse technologies and provide solutions for water supply and sanitation in rural and agricultural areas in Latin America did include an approach on gender equality. The gender equality approach implied: “mobilization, monitoring and information”. The mobilization was mostly about organizing and facilitating the project staff and stakeholders. Monitoring was about responds to the questionnaires and reporting. Information and language is about the project and data gathering. It covers the organization, the process and the content of gender equality within the COROADO objective.

About the project staff: type of position and gender balance

Total staff working for COROADO on average is about 100, starting with 113 in the first project period and ending up with 89 in the last project period. The numbers show an average of 44 (43%) women and 57 (57%) men. This means the total staff has more or less a gender balance. Although less people worked for the project in the last period, it were women as well as men that left, the balance remained similar. From the 13 teams 8 teams are gender balanced. However there is no gender balance in the “Type of position”. Among “early researchers” there is a balance, for “other staff” there are more women. For the higher level functions: “experienced researchers, scientific team leader and the scientific manager”, there are remarkably more men than women.

The working conditions and life balance

The issues related to gender, working conditions and life balance were clearly recognized by all respondents. Examples about what is facilitated on the work floor (either by national law or institutional regulation) and suggestions what is still needed were given. Flexible working hours and part time work are most often mentioned being important. Some improvements for more gender equality are yet to be realized, this is for some partners about child care, elderly care and part time work.



About the study sites stakeholders: participation and gender data

The number of stakeholders in the two workshops from the four COROADO Latin American study sites were balanced in terms of participation by men and women, except TDC Mexico where women were only about 10 % of the total. The balance is influenced in several ways, availability is one, the way the stakeholders were invited for the project and the media used for communication is another which is influenced by the study site leaders.

About stakeholder roles, access and acceptance of reuse water supply

The roles or tasks among the stakeholders generally show no difference in the level of tasks or role division, except from more men in agriculture and technical activities (as mentioned by Argentina). No significant gender differences are noticed in the COROADO study sites concerning access or acceptance of a reuse water supply. Other reasons like social status are stressed to be more current. It needs more research to be sure if there is no gender difference in the access and acceptance of reuse water supply. Knowing the roles and the gender of the stakeholders is a start in gender disaggregated data gathering and part of the content about gender equality.

More in general in the study site areas the typical roles for women in Chili and Mexico mentioned are in the commercial sector, in Chili specifically housekeeping as a service, the public sector and the social community service. Mexico mentions also value crops and supportive tasks as administration and clerical functions. Argentina mentions home tasks and the important influence of women in social interaction. Task for men in Chili are in the mining industry and construction and in Argentina machinery and vehicle industry.

From a national perspective Mexico also mentions the government that is almost occupied only by men. The other three countries have since 2006 regularly a woman as president which is a high score compared to the rest of the world leaders (10% women). Many gender equality improving laws are being implemented, however still a lot has to be done by both genders to change towards equal opportunities in all sectors and throughout time. Many worldwide figures show the gender inequalities that can be turned into more equal societies and can also fall back into inequalities if there is no political or social willingness to stay balanced.



About the communication

To see the gender inequalities it is important to gather gender disaggregated data. Disaggregated data show (in) equalities. About reuse water is useful to know if there is a difference in acceptance. We asked about it, but cannot conclude that for COROADO. If it were an issue for men or women specifically there could be communication with them in a way that fits them and their roles best.

Several types of media are used to give information about the project to the different stakeholders, including the workshops, meetings, networking, and press releases. These are very helpful to translate the technical message to a larger audience. Local website portals and social media are also easy and fast ways that are used to reach and know the stakeholders and the target groups.

About the international context

COROADO takes part in the international effort to awareness and improvement of gender equality, related to the project research and the involved institutes and stakeholders. The conclusion from the UN millennium development goals for 2015 and beyond, is the need for family friendly working conditions, and the importance to improve working opportunities for women to an economic growth for all. The EU in the programmes for Horizon 2020 also points at the incorporation of gender needs and a gender balance by addressing the underlying causes of gender imbalance, by exploiting the full potential of both female and male researchers also in evaluation panels and in other relevant advisory and expert bodies in order to improve the quality of research and to stimulate innovation. This means that the international agenda sees gender equality (and diversification) as an important issue to keep paying attention to and improve where needed.

Gender equality is not self-evident and not arising by time, it needs efforts from both genders. It will always be important to be aware of the gaps, and try to overcome them, at work, in the content of the work and at home.



7 Analysis and recommendations

Balancing gender in positions

The participation of men and women in the research teams is generally balanced in COROADO. It has however more men are at higher positions than women. How could this become more equal? In the project context it is difficult to change the type of position, but a helpful precondition in a research proposal nowadays is an objective in the EU 2020 programme: *Fostering gender balance in Horizon 2020 research teams: Applicants to Horizon 2020 are encouraged “to promote equal opportunities in the implementation of the action and to ensure a balanced participation of women and men at all levels in research and innovation teams and in management structures”*. In order to address the gaps in the participation of women in the Framework Programme’s projects (EC 2014).

The subject of a gender balance in the project team is not ignored, but the situation is sometimes taken for granted. Answering to the questions for these gender reports by the research team themselves may have helped to raise awareness for gender equality. So does talking and writing about the subject for example in exchanging ideas about conditions at the work place. And especially open minds for interdisciplinary teams and diversity also broadens the perspective and helps to gather realistic data and useful solutions.

To find the right people to work on the project depends also on the availability of diverse staff which depends on education, the communication and information (and the way they are offered), keypersons, challenges, personal attention and positive examples. Still, awareness of inequalities and willingness to get the balance in a diverse staff are the basis to get it.

Communication with stakeholders

According to the information there is no significant inequality among the type of positions of the study site stakeholders. There is however inequality in the participation of the stakeholders. To involve a broad spectrum of stakeholders also depends on the media you chose to inform about the project (websites, social media or even radio) and the way the stakeholders are invited to the



intended workshops are important to make them part of the project. If it is stressed in an invitation that it is important to have women as well as men in the workshops both genders feel invited. Or make use of existing networks, classes, thematic groups to inform them and know their interest and needs and get mutual understanding on the problem, the solutions and maybe the deals to get to a win-win solution. Briefly the study site leader considers which stakeholders should participate in the project before choosing the type of media or the way the stakeholders will be invited for meetings and the type, place and time of getting together.

Gender balance in reuse water acceptance

For water acceptance or other social related water issues it is helpful to be aware what users need. For the communication and information it is good to direct at your target group. Therefore you have to understand them. If women have different roles they may have different needs than men. The right information will help to improve the solution. It is good to consult a participation and gender specialist being or have one part of the consortium, especially when a project intends to work with study sites and local stakeholders.

There was no case mentioned about gender appropriate technologies, maybe focus next time upon *Gender-responsive technologies* that are defined as: (i) technologies based on needs and interest of female farmers; (ii) technologies that reduce time and labour for women farmers; (iii) and technologies that are accessible and affordable by women farmers. (World Bank 2015)

The World development report and world Economic Forum show that countries that are least developed also have the largest inequalities among women and men. (WEF 2013a)

The Millennium Development Goals have been a great success in many ways. Plans are now being made within the UN system to ensure that sustainable development goals can be set (and met) as well, called: Transforming our world: the 2030 Agenda for Sustainable Development (UN2015a)

"To be truly transformative, the post-2015 development agenda must prioritize gender equality and women's empowerment. The world will never realize 100 per cent of its goals if 50 per cent of its people cannot realize their full potential." Secretary-General Ban Ki-moon (UN 2015b)



References

COROADO 2012: D2.1.sep 2012, Source: INEGI, Population and Housing Census 2010, p. 71.

COROADO 2013: Comparative analysis of irrigation strategies and technologies identified in the case study areas (WP5)." 2013.

COROADO 2014: COROADO second workshop guidelines September 2014

EC 2014: Gender equality Horizon 2020 EC EU framework programme for research and innovation, p.7-9. Vademecum on Gender Equality in Horizon 2020 p.1-2

EC 2015: She figures 2015 Gender in research and innovation preliminary results

EU 2009: Women in science and technology, creating sustainable careers, EU 2009, *Pierre Bismuth*

EP & CU 2006: European Parliament and Council of the European Union, 2006. Decision No 1982/2006/EC of the European Parliament and Of the Council of 18 December 2006.

FAO 2012: Coping with water scarcity, an action framework for water and food scarcity FAO, Water reports, Rome, p. 123-126, E-ISBN 978-92-5-108187-7 (EPUB) from

Franceschet, S, and J Piscopo. "Gender Quotas and Women's Substantive Representation: Lessons from Argentina." *Politics and Gender* 4 (2008): 393-425 (From Irrigation in an urbanizing area, Jurrian Wilmink, MSc thesis 2014 p. 25)

UN 2014a Book 9 Sources: Realising the human rights to water and sanitation. Introduction. A handbook by Catarina de Albuquerque, UN Special Rapporteur on the human right to safe drinking water and sanitation, p.7.

UN 2014b: This statement was delivered by Roberta Clarke, Regional Director for Asia-Pacific for UN Women at the 7th Official Plenary of the Third International conference on SIDS.

UN 2014c Book 1 Introduction: Realising the human rights to water and sanitation. Introduction. A handbook by Catarina de Albuquerque, UN Special Rapporteur on the human right to safe drinking water and sanitation, Ch.9.1, p. 30.

UN 2014d: source 9: Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The right to water (E/C.12/2002/11), para. 53. (see Principles: Equality, pp.21-24) (from UN 2014 book 5 Monitoring p. 11)

UN 2014e: The millennium development goals (MDG) report 2014, New York, p 22-23

UN 2015a: Transforming our world: the 2030 Agenda for Sustainable Development

UN 2015b: Secretary General Ban Ki Moon at women day 8 March'15

This project has received funding from the European Union's Seventh Programme for research, technological development and demonstration under grant agreement No 283025



WEF 2013a: The Global Gender Gap Report 2013. World Economic Forum. P.28 Geneva

World Bank 2012: World Bank *Group President Jim Yong Kim, preface World development report '12*

Kim J.Y., 2012. World Bank Group President at: Evidence and Impact: Closing the Gender Gap, Washington, DC, USA, July 19, 2012.

Wilmink 2014, J., Irrigation in an urbanizing area, MSc thesis WUR /UC/ COROADO 2014 p. 26-29

Zwarteveen, M., 2012. No more heroes anymore? Feminist contributions to water scholarship. Canberra, Australia: "Tapping the Turn. Water's social dimensions", 2012-11-15. Zwarteveen, M. (a.o.), 2011. Questioning Masculinities in Water. Econ. and Politic Weekly 2011 vol XLVI 18, p.40-48.

Annex E: I Tables Water Related Conditions 130901 social acceptance 140924 gender survey.xlsx Table 2012, from TDC Mexico

Website links, portals:

COROADO: <http://www.coroado-project.eu> http://www.coroado-project.eu/?page_id=20

Chile SERNAM: <http://portal.sernam.cl/?q=copiapo>

Chile, Prodemu FB: <https://www.facebook.com/pages/Prodemu-Atacama/597057013732471>

EC http://ec.europa.eu/research/swafs/index.cfm?pg=library&lib=gender_equality

EP Cordis: <http://cordis.europa.eu/documents/documentlibrary/90798681EN6.pdf>

FAO: <http://www.fao.org/publications/e-book-collection/en>

FHNW: <http://www.fhnw.ch/ueber-uns/gleichstellung/>

<http://www.wssinfo.org/post-2015-monitoring> (WHO and UNICEF joint monitoring program)

https://en.wikipedia.org/wiki/Gender_equality#/media/File:Igualtat_de_sexes.svg

UN <http://www.un.org/millenniumgoals/>

From MDG to SDG: <http://www.undp.org/content/undp/en/home/mdgoverview/>

UN www.unwomen.org UN <http://www.un.org/en/events/womensday/2015/sgmessage.shtml>

www.un.org/en/sections/priorities/economic-growth-and-sustainabledevelopment/index.html

WSP World Bank, www.wsp.org Water and sanitation program, World Bank calendar 2011)

World Bank 2015: WB Gender in agriculture sourcebook: <http://www-wds.worldbank.org/>

World Economic Forum www.weforum.org

<https://sustainabledevelopment.un.org/post2015/transformingourworld>

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Annex A: Gender action plan COROADO

The COROADO Gender Action Plan is divided into four components and two additional issues.

The four components are: 1 Balanced mobilization and career opportunities of women and men; 2 Monitor gender balance and changes; 3 Information sharing and 4 Use gender neutral language.

The two specific issues are Gender appropriate technology and Incorporation of gender needs.

1) **mobilization** of women into the project by implementing particular approaches and activities at all stages of the project, creating opportunities for women in the project design (from formulation to targeting of beneficiaries, to final reporting) and by addressing the needs of women researchers;

2) **monitory** of the gender dimensions to identify and quantify all gender issues and make them visible (a. by publication of gender statistics and gender issues in the COROADO Project in annual reports or on the website, b. by supplying gender information to other EU working groups and c. by collating and commissioning targeted research and establishing sex-disaggregated information systems);

3) **share and link information** with other women's networks at Institution, National, EU and International level to facilitate coalition building and awareness of employment and career possibilities;

4) **use of gender neutral language** which minimizes unnecessary concern about gender in their subject matter, allowing both the writer and the reader to focus on what people do rather than on which sex they happen to be. Implementation of the gender action plan may lead to innovative approaches like the development of gender appropriate technology and the incorporation of gender needs at stakeholder meetings.

Gender appropriate technology

Women are key members of many of the stakeholder groups who will contribute to COROADO project. Gender disaggregated statistics will be collected and analyzed for all stakeholder groups.

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Gender sensitive analyses will be used in all stages of the project where it is appropriate as it is in the definition of problems, in the development and validation of potential solutions, and in training and dissemination. This will include: a) new technologies (gender appropriate), b) systems approaches (gender in defining water use and needs), c) management solutions (involvement of women in decision making, gender empowerment for participation, gender sensitive communications and responses)

Incorporating gender needs

Some other positive actions will be taken to increase the input of women to the COROADO project – both as stakeholder contributors and as researchers because it is critical to provide incentives for women to stay in their areas and instead of being anonymous heroes, to become active members undertaking positions of competence and responsibility. Incorporating gender needs, actions which will be considered include:

- Seminar/conference/workshop to raise awareness about the need to increase gender equality in responding to the issue of water stress.
- Making Project activities, timetables, *stakeholder* meetings, etc. more flexible and family friendly to open the way to greater participation by women



Annex B1: Questions for the final report

- 1 Are there changes in the **type of position** in your COROADO project team since 2014?
No / Yes >> If yes, fill the schedule below...

type of position 2015	Nr of Women	Nr of Men
Scientific manager/coordinator		
Scientific team leader / work package leader		
Experienced researcher (> 4 years and/or PhD holder)		
Early researcher (<= 4 years and/or PhD student)		
Other staff		
Total number of women and total number of men in your team working for the COROADO project in 2015		

2. Did you actively try to achieve and to keep a gender **balanced project team** (2011-2015)?
No / Yes >> If yes, fill the schedule below...

How did you achieve this and is it effective?

Did you:	Was it: Not at all effective	1	2	3	4	5 Very effective
Design and implement an equal opportunity policy?						
Set targets to achieve a gender balance in the team?						
Include gender issues in conferences and workshops?						
Other:						

3. Did you use specific **communication** measures to gather a gender balanced project team and/or stakeholder involvement? No / Yes >> If so, what measures?.....

Questions for the COROADO project teams with a **case study site**.

4. About the **stakeholder** men and women in your project **study site (2011-2015)**:
- 4.1 **How many** stakeholders were involved (estimation) in total in the project study site?
(Please put your responds in the table below);
- 4.2 Is there a **specific role for women and for men** among the stakeholders you met in the project study site?
- 4.3 What **impact** did the project have on the men and women stakeholders?

Responses to question 4	women	men
4.1 Total number of stakeholders?		
4.2 Role stakeholders?		
4.3 Impact project?		

If you have **pictures and stories** related to your experiences with gender (in) equality in the institute or at the COROADO study sites, please send them too to info@corepage.org, thank you!



Annex B2: Questions second project period

1. Type of position

Type of Position project team COROADO 2014	Number of Women	Number of Men
Scientific manager/coordinator		
Scientific team leader / work package leader		
Experienced researcher (> 4 years and/or PhD holder)		
Early researcher (<= 4 years and/or PhD student)		
Other staff		
Total number of women and total number of men in your team working for the COROADO project		

2. Did you do something for the **gender balance in your project team**: Yes / No / other ...

If you did, what did you do?

3. Could you mention some family friendly **working conditions** (like flexible working hours) that help to have a gender balanced project team? Which conditions were added, and which ones are in your view still missing?

4. If your project team does research with stakeholders in the study site for COROADO, how many men and women stakeholders did actively **participate in the workshops**? (1st workshopmenwomen, 2nd workshop men ...women, other meetings...)

5. What **role do the men and the women stakeholders have** in the research activities?*

*(For example: policy makers, water and sanitation managers, land owners or farmers helping monitoring practices, doing needs inventories communication and networking).

6. If you looked at “social acceptance” in evaluating water reuse and recycling (WR&R) in your study site, did you gather **information about WR&R from men and women**? Can you send me this information and links referring to the study site?

Additional study site information:

I am gathering some extra gender information about the study sites, instead of asking you for a study site poster, please help me with the information/links you have about:

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Numbers:

- The numbers of men and women living in the study site area making use of the water supply system.menwomen
- The number of men and women that could apply for a reuse water supply system.menwomen

Task division M/W:

- Could the task division between man and women change in the area after implementing the water reuse technologies? How?
- Are most landowners living in the study site area women or men?womenmen
- Are most decision makers in the water supply man or woman?menwomen
- Is there a change in tasks during special seasons? (Winter, summer, rain seasons?)
- Are there tasks only done by women? What tasks, why only women?
- Are there tasks only done by men? What tasks and why only men?
- If all the tasks are done by the men, what are the women doing?

Information to users:

- How is the information about possible new water reuse practices, made accessible to both men and women, could you send examples of the information?
- Did you notice any resistance against use of reuse water and if so, do you know why, was there a difference among men and women and how did you cope with it?
- Is there indigenous knowledge about water reuse practices? Yes / No,
- If yes, how is it being used?
- Can you give a short local gender success story?

Pictures, illustrations:

- Could you send any illustrations or pictures concerning the gender issues in the study site?



Annex B3: Questions first project period report

Questions for all partners COROADO about gender equality

Dear COROADO project partner,

The COROADO Description of Work (DOW) includes activities to promote gender equality. To enable the reporting about this to the EU, would you please respond to the following six questions and send your respond to info@corepage.org :

1.

Type of Position project team start COROADO	Number of Women	Number of Men
Scientific manager		
Scientific team leader / work package manager		
Experienced researcher (> 4 years)		
Early researcher (<= 4 years)		
PhD student		
Other staff		

2. If your project team is gender balanced, how did you achieve this?

If there is no gender balance in the project team, what are the main reasons for this?

3. Does your project team work (do research) with stakeholders for COROADO? Is there a gender balance among the stakeholders you work with? Do they actively participate in the research, and how are they embedded in the research activities? (For example policy makers, water and sanitation managers, land owners, farmers).

4. If your research is aimed at developing new technologies, would you take gender appropriateness of the technology into account, meaning that the technology can be managed and used by men as well as women? What type of criteria are you using for this purpose?

5. If you are gathering socio economic data for the research, do you gather gender disaggregated data, meaning data collected and reported about men and women separately? Do you expect any differences regarding output?

6. Could you mention some family friendly working conditions required for a gender balanced project team, and for the research organization you are working for also? Which conditions are already in place, and which ones are in your view still urgently required?



Annex C: Proposal student research



Short description COROADO

The objective of COROADO is to assess water recycling and reuse technologies and provide solutions for water supply and sanitation in rural and agricultural areas in Latin America in the context of climate change and water scarcity, within an ecosystem approach in Integrated Water Resources Management (IWRM). The project is looking for MSc research students to help monitoring the participation and capacity building of stakeholders and promote gender equality; and to research how needs and interests, rights, responsibilities and decision-making in IWRM are gendered. See <http://www.coroado-project.eu/>, and below for short descriptions of region-specific MSc research:

Short description 1. Copiapó River Basin, Chile:

Copiapó River basin is water stressed because of mining (copper, gold, iron); growing demands from agriculture (grapes, olives and crops); and increased local consumption. The MSc research focuses on identifying possibilities to improve the integrated model for water use in the area, based on a study of the Pontificia Universidad Católica (PUC). In particular, the research should establish whether the recommended reuse and recycling practices are applicable by end users, with a special emphasis on differences (including those based on gender) between them. What are the implications for supply and demand scenarios in sustainable water use?

Short description 2. Suquia Basin, Cordoba, Argentina:

The challenges of this basin are to improve the general condition of the environment and to make a more sustainable use of the water, reducing the risks both to human health and to the environment, considering institutional and regulatory aspects.

The MSc research focuses on an analysis of the implications of the Water Recycling and Reuse Technologies for men and women in the area, with the objective of further operationalizing an integrated sustainable and gender appropriate improvement.

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Short description 3. Rio Bravo/Rio Grande Basin, Mexico:

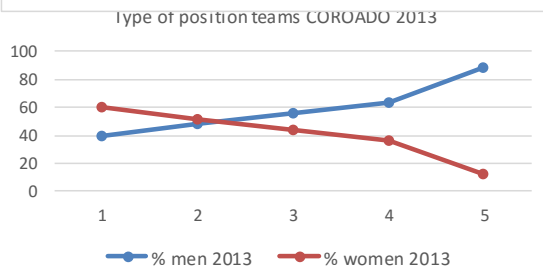
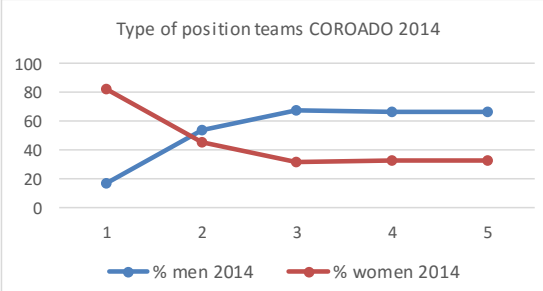
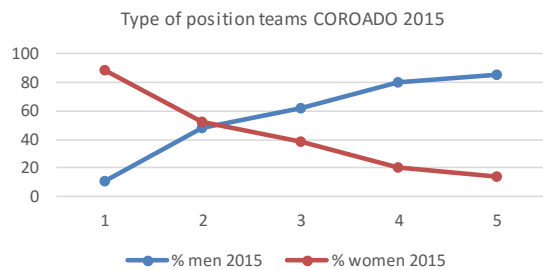
Here, there is a real risk that the region may soon not meet water demand in quantity and quality. There are several organizations and projects working in the area to solve this problem. The MSc research focuses on water uses in periods of drought and water scarcity, identifying sustainable and unsustainable practices (pollution) by men and women end users. This will be fed into future water use scenarios and help adapt and target new technologies to existing -gendered- needs and practices.

Short description 4. Upper Tiete River Basin, Sao Paulo, Brazil:

The Upper Tiete River Basin covers the Metropolitan Region of Sao Paulo. The major challenge for water managers is to supply all users in a fast growing system, within an integrated management system. The MSc research will shine a light on the ability of men and women to contribute to the management system with new technologies of water supply by conservation, reuse, recycling and rational use of water.

Annex D: Results type of position

Organisation name	(5) w-Sc manager/coord	(5) m-sc manager/ coord	(4) w-sc team/ WP leader	(4) m-Sc team/ WP leader	(3) w-Experienced res	(3) m-Exp researcher	(2) w-Early researcher	(2) m-Early researcher	(1) w- Other staff	(1) m- Other staff	total '15	total women '15	total women '14	total women '12/'13
1.AUA		1		1	1	3	1				7	2 ('14)	2	1
2.ALTERRA				1	3	2	1				7	4	6	8
3.CSIC				1	3	2	1				7	4	4	4
4.UPORTO				1	1	2		2			6	1	1	1
5.NTUA		1	1		1	1	3	4			11	5	9	9
6.USP	1		1		1	4	1		2	1	11	6	6	7
7.PUC				1	1	4	1	2			9	2	1	0
8.GEOMATIC		1		1		1	1				4	1 ('14)	1	1
9.BIOFORSK						1		1			2	0	0	2
10.FHNW		1			1	1	1		1		4	2 ('14)	2	2
11.TDC					1	1	1	1	2		5	3	3	3
12.UC		1		1	5	3			1		11	6	6	11
13.SEA		1		1		1			2		5	2 ('14)	2	2
Total											89			
total men positions		6		8		26		10		1	51			
total women positions	1		2		16		11		8		38		76	51
15 Position number	1	2	3	4	5									
total women	8	11	16	2	1						38			
total men	1	10	26	8	6						51			
total per position	9	21	42	10	7						89			
% men 2015	11	48	62	80	86						57			
% women 2015	89	52	38	20	14						43			
1= Other staff														
2= Early researcher (<= 4 years and/or PhD student)														
3= Experienced researcher (> 4 years and/or PhD holder)														
4= Scientific team leader/work package leader														
5= Scientific manager/coordinator														
14 Position number	1	2	3	4	5									
total women	10	13	13	4	3						43			
total men	2	15	28	8	6						59			
total per position	12	28	41	12	9						102			
% men 2014	17	54	68	67	67						58			
% women 2014	83	46	32	33	33						42			
13 Position number	1	2	3	4	5									
total women	9	17	19	5	1						51			
total men	6	16	24	9	7						62			
total per position	15	33	43	14	8						113			
% men 2013	40	48	56	64	88						55			
% women 2013	60	52	44	36	12						45			



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For example the EU [She Figures 2012](#), shows that despite progress, gender inequalities in science persist. For example, while 50 % of EU graduate students in 2010 were female, women held 20 % of senior academic positions (see figure 3.2). “...the scissors cross once one reaches the doctoral preparation stage and the other levels that open the way to academic and research careers, the pipeline leaks, and at the very top, at grade A, we are left with just 20 % of women. Although women’s share increases over time at all levels, policies are needed to fasten the pace of women’s catching-up”

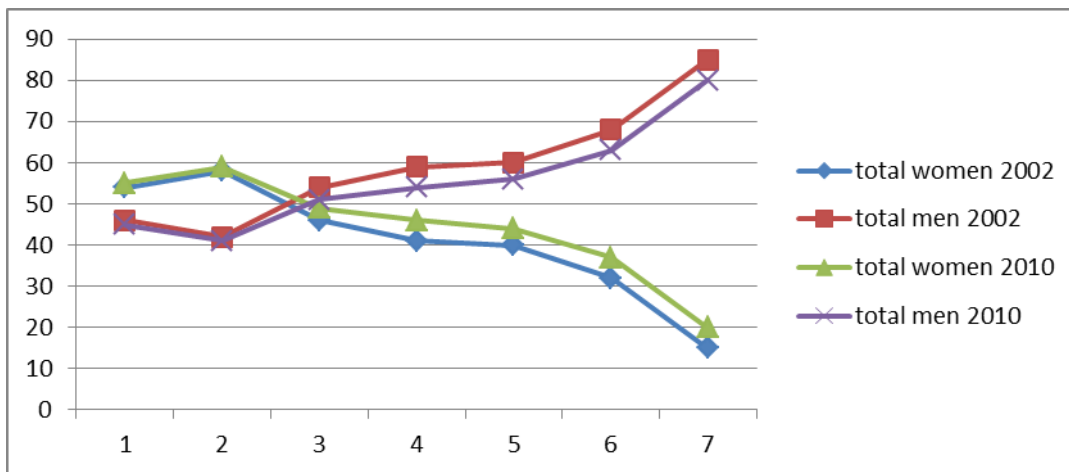


Figure: Proportions of men and women in a typical academic career, EU-27 2002/2010 comparing percentages with level of grade/ post (1 resembling starting students, 7 seniors in top positions, grade A).

Annex E: TDC study site data collection acceptance water reuse

Table 4.1. Data collection table for social acceptance of water reuse and recycling (Survey 2012)

Stakeholder group of waste water users	Study site	Number of respondents	Concern, that water recycling and reuse schemes create the following problems:					Which water uses should be supplied with reclaimed water (now or in the future)?												
			Adverse environmental impacts		Community health and safety risks		Water quality problems		Crop irrigation		Urban: Potable		Industrial: Other							
			1	2	3	4	5	1	2	3	4	5	Yes	No	Yes	No	Yes	No	Yes	No
Level of importance/agreement (1-5) % of respondents corresponding to each level of importance/agreement, total 1-5 must be 100%																				
Percentage (A-D)																				
Site: 3																				
m	DR26 - Agricultural	3																		
m	Agricultural																			
m	Agricultural																			
Site: 3																				
m	Urban/dome																			
w	Industrial																			
m	Nature/Envir																			
m	NGOs																			
REINOSA		25	75	25	25	50	25	50	25	75	25	100	100	75	25	100				
Site: 3																				
w	Urban /																			
m	Industrial																			
m	NGOs																			
RIO BRAVO		3																		
Site: 3																				
m	DR25 -																			
m	Agricultural																			
RIO BRAVO		3																		
Site: 3																				
m	Urban/dome																			
m	NGOs / Other																			
HERMOSO		2																		
Site: 3																				
m	Urban / do																			
m	Industrial																			
w	Nature/Envir																			
m	NGOs / Other																			
MATAMORO		4																		
TOTAL		19	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##
woman respondent																				

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