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Making the case for gender-responsive adaptation planning in Uruguay: The importance of sex-disaggregated data

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This case study shares Uruguay's recent experiences collecting and analyzing sex-disaggregated data relevant to adaptation planning in the agriculture sectors¹. It describes the findings from a qualitative and quantitative study that aimed to generate information about resources as well as symbolic, cultural, and economic barriers affecting adaptation in agricultural production from a gender perspective. The case study summarizes lessons learned both for planners in Uruguay's agriculture sectors, as well as for decision-makers in other countries who are interested in better understanding and tracking gender dimensions of adaptation in agriculture.

Highlights

- ➔ Uruguay has established multiple commitments to promote gender equality in the agriculture sectors within its overall efforts to adapt to the impacts of climate change.
- ➔ A lack of consistent collection of sex-disaggregated data in rural areas was identified as a challenge to establishing in precise terms the gender dimensions of adaptation in agriculture in Uruguay. This understanding is considered a precursor to developing gender-responsive adaptation plans and policies.
- ➔ A multi-disciplinary team of stakeholders from the Ministry of Livestock, Agriculture, and Fisheries (MGAP), the Ministry of Land Planning, Housing and Environment (MVOTMA), and the Institute of Women's Affairs of the Ministry of Social Development (MIDES) designed and carried out a study to pilot a methodology for closing the gender data gap, with support from FAO and UNDP.
- ➔ During 2017-18, the team conducted a quantitative and qualitative study of rural female farmers in family farms and medium-sized establishments in the cattle, dairy, and horticulture sectors. Data was collected on issues including perception of climate change, participation in household decision-making, adoption of adaptation measures, participation in groups, and the intersecting issues of education level and youth outmigration.
- ➔ The findings of the data analysis indicate that gender relations, particularly in the context of household decision-making and participation in trainings and groups, can affect the adoption of adaptation actions. The data also suggests that there is a significant age difference in willingness to undertake farming activities, with youth outmigration posing a significant challenge for the continuation of rural activities.
- ➔ As a first step toward utilizing the data gathered through this study in adaptation decision-making, the multiple actors involved in the study identified means to integrate some of the data collection methodologies into existing data collection mechanisms, namely the agricultural census and the Registry of Family Farmers.
- ➔ This study demonstrated key methods that can be used going forward for analyzing and monitoring key gender dimensions of adaptation in agriculture, which in Uruguay are seen both within and outside the household.
- ➔ Adaptation planners can draw lessons from the experience of Uruguay, including on the importance of inter-institutional collaboration and the value of analyzing issues of empowerment, isolation, and inclusion in relation to the uptake of adaptation options.

¹ The term 'agriculture sectors' used throughout the document refers to crop-based farming systems and livestock systems, including rangelands and pasturelands; forestry and fisheries.

The challenge

In Uruguay, sex-disaggregated data on agricultural livelihoods are not collected consistently in rural areas, nor are they fully analyzed. These data limitations constrain planners' ability to understand fully the distinct roles and responsibilities of women and men involved in agricultural production as well as the challenges they may face (Doss & Kieran, 2014).

The need to understand gender²-based issues in agriculture becomes more urgent as decision-makers seek to develop inclusive policies in response to the impacts of climate change (see box 1). Recent research has shown that disaggregated data can highlight differences in women's and men's perceptions of climate change as well as the barriers they face and their differential access to and control over resources, information, and services, which are linked to adoption of adaptation practices and technologies. The data also show gender-differentiated preferences, needs, and priorities for responses to climate change (Singha *et al.*, 2010; Bryan *et al.*, 2015).

Collecting sex-disaggregated data contributes to providing a more complete understanding of agricultural production and rural livelihoods, including raising the visibility of women. Planners and decision-makers can monitor these disaggregated data over time to see if there has been adoption of adaptation options and if so what kinds, by whom, and the challenges adopters face in doing so (World Bank, 2016).

Box 1

Climate change and Uruguay's agriculture sectors

- By the end of the 21st century, the average temperature in Uruguay is projected to increase by 2 to 3°C; estimates indicate that annual precipitation will increase by 10 to 20 percent. Other shifts will likely include a slight decrease in the number of days with frost; a significant increase in the number of warm nights; an increase in the duration of heat waves and a significant increase in the intensity of precipitation. The impacts will be felt differently within Uruguay's diverse land-use patterns and production systems, whether crops (wheat, soybean, rice, maize), fruit (citrus, viticulture), grasslands (beef, dairy, sheep), horticulture or forestry (natural and plantation). Adaptation strategies and practices will therefore need to differ between each of these sectors (FAO, 2017).
- Uruguay has responded to the threats of climate change through instituting a suite of climate change policies, strategies, and plans - most notably the National Policy for Climate Change, released in 2017. It also adheres to numerous international agreements, including the UNFCCC Paris Agreement and the Sustainable Development Goals.
- Agriculture is an important sector in Uruguay's economy, contributing about 7 percent to the Gross Domestic Product (GDP) and about 71 percent of the total goods exported (World Bank & CIAT, 2015).
- The intensity and frequency of floods and droughts in the last decade have changed noticeably according to historical records, negatively impacting agricultural production (*Ibid.*).
- Uruguay's Ministry of Livestock, Agriculture, and Fisheries (MGAP) has prioritized adaptation to climate change and variability in its policies and actions, incorporating it as one of the key pillars in the process of sustainable intensification.

Further information can be found at FAO, 2017.

² The category of "gender" was created to explain that the social roles assigned and exercised by women and men are not the product of biological or sexual differences, but the result of historically assumed social and cultural constructions (Batthyány, 2004). According to Aguirre (in Batthyány, *Ibid.*) gender as a category "...allows us to analyze roles, responsibilities, limitations and different opportunities for men and women in various areas such as a family unit, an institution, a community, a country, a culture. In this way, the concept of gender does not refer to the characteristics derived from the biological or natural realities, but to those that vary from one culture to another, according to their way of organizing and the individual and collective experience."

The context

In 2016, Uruguay began the preparation of its National Adaptation Plan for the Agriculture Sectors³ (PNA-Agro) with the support of the NAP-Ag Programme, implemented jointly by the United Nations Development Program (UNDP) and the Food and Agriculture Organization of the UN (FAO), with financing from the Ministry for the Environment and Nature Conservation and Nuclear Safety of the German government (BMU). The PNA-Agro addresses questions around which activities are needed for adaptation in agriculture, forestry and fisheries, in which parts of the country, and how producers can effectively reduce their vulnerability and build their resilience to future climate uncertainties. Evidence indicates that smallholder producers in developing countries are among the most vulnerable to climate change (FAO, 2016; López & Hernández, 2016), thus targeting smallholder livelihoods with adaptation support is particularly important.

Within these efforts, there was an interest in promoting gender equality and women's empowerment, in line with existing commitments (see box 2). Uruguay's ranking on the Global Gender Gap Index (56 out of 144 countries) gives a sense of the relative gaps between women and men across health, education, the economy, and politics (World Economic Forum, 2017). However, data and related analyses on issues relevant to agriculture and climate change, such as secure access to land or land ownership, are lacking, including in the agricultural census. The process of developing the PNA-Agro was seen as an opportunity to explore the different attitudes that men and women have, and the strategies they employ in response to the challenges associated with climate change and variability. In addition to strengthening agricultural and rural statistics with a gender approach, this would be a crucial baseline for establishing indicators that allow the country to analyze the contribution of women to primary production, as well as challenges presented by climate change.

Box 2

Uruguay's commitments to gender equality and women's empowerment

- Ratification of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) (1981).
- Establishment of the National Institute for Women's Affairs (INMUJERES) (2005).
- Legislation: Domestic Work Law (2006), Consensual Union Law (2008), Reproductive and Sexual Health Law (2008), Law on Quotas (2009), Sexual Harassment Law (2009), Gender Identity Law (2009), Voluntary Pregnancy Termination Law (2012), and Parental License Law (2013) among others.
- There are no reported legal restrictions on women's access to land, and unmarried and married women have equal rights to property ownership by law. By law, women and men have equal inheritance rights in Uruguay, although men tend to be the preferred heirs (OECD, 2017).
- A gender-based approach is mainstreamed within the National Plan for Equal Opportunities and Rights (2007-2011).
- The National Strategy for Gender Equality (2017) includes strategic action areas like climate change, agriculture, and rural livelihoods.

Source: UN Women Americas and the Caribbean

Study on gender, agriculture, and climate change

With the support of the PNA-Agro process, in 2017, the Ministry of Livestock, Agriculture, and Fisheries (MGAP) partnered with the Ministry of Land Planning, Housing and Environment (MVOTMA) and the Institute of Women's Affairs of the Ministry of Social Development (MIDES), to conduct a study on gender, agriculture and climate change. The design, implementation and analysis phases of the study drew on the expertise of various divisions at MGAP, including the

³ For a case study on the steps taken to develop Uruguay's NAP for Agriculture, see FAO, 2018 in English and Spanish.

Specialized Gender Commission, the Agricultural Sustainability and Climate Change Unit, the Agricultural Statistics Division, the Rural Development Division, and the Agricultural Policy and Programming Office. The intention of the multi-division and cross-agency approach was to ensure that the methods could be replicated and the findings would be useful in the future work of the agencies. The study sought to:

- document women’s perceptions of climate change and the adoption of adaptation practices;
- investigate men’s and women’s roles in decision-making and their access to and use of government support for adaptation;
- recommend what information to collect in order to track gender issues in agricultural and rural statistics; and
- support adaptation planning in the agriculture sectors by identifying opportunities to promote equal opportunities for women and men to enhance their resilience.

The target population of the study was women, aged 18 to 70 years old, from dairy, livestock, and horticulture production farms that were either family farms or medium-sized farms⁴, and who lived on or up to 50 kilometers from their farms. The team prioritized the voices of women in the study as previous national agriculture sector climate change adaptation surveys had not exceeded 25 percent female participation. The team also reviewed methodologies from other surveys on gender and adaptation in the agriculture sectors. The review found that comparing women’s and men’s knowledge from a single questionnaire can lead to unreliable results and conclusions as this approach neither considers the different contexts in which women and men live and work, nor the value chains in which they may participate.

A telephone survey⁵ was administered by a private firm during late 2017 and early 2018, covering the topics of perception of climate variability and change, adoption of adaptation measures and barriers to adoption, use of bookkeeping and planning, participation in decision-making, access to training, participation in groups, unpaid activities, satisfaction with personal life, and access to and use of goods in the household (car, internet, etc.). The survey did not measure the amount of time devoted to activities, but instead inquired about women’s and men’s contributions to different activities including in farm and domestic work (i.e. cooking, washing, tending to chickens and pigs that do not go to market), a space typically associated with women in rural Uruguay. Doing so enabled interviewers to also ask about women’s contributions in areas of work typically associated with men, such as livestock rearing for market, without generating resistance to answering the questions.



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4 Family farm: up to 500 hectares managed by a person with up to two permanent employees who are not relatives and who lives less than 50 kilometers away. For full definition, see MGAP, 2018a. Medium-sized farms: Up to 1250 hectares.

5 Because of the intended broad reach of the study across the country, the team had to overcome the challenges of accessing Uruguay’s most remote and isolated areas which are constrained by limited transport (i.e. limited secondary roads and infrequent, poor road infrastructure). Additionally, because of transport limitations, families often move to town to give their children access to secondary schooling. The team assessed the potential for using mobile and fixed telephony to administer the survey including cost and capacity for reaching more people. After reviewing existing telephone survey records conducted in the country on gender issues, the team decided to administer the survey by telephone.

To complement the 64-question survey, multiple qualitative tools were used, including individual interviews, group interviews, focus group discussions, workshops, and key informant interviews (see Box 3). These captured information from men and women on decision-making, especially as related to adaptation to climate change, focusing on gender roles and dynamics.

Box 3

Rural women’s dialogue on gender and climate change and climate variability

In August 2017, 25 women involved in family farms (dairy, livestock and horticulture production) from different regions met over three days in Canelones to strengthen their capacity to participate in sustainable rural development processes, especially in relation to adaptation to climate change and variability. The workshop aimed to raise women’s awareness of the importance of management for adaptation and the sustainable use of natural resources. It also sought to facilitate the critical analysis of women’s role in decision-making. Discussions were held on the perceptions of rural women in production and impact of community involvement and participation to reduce vulnerability. At the end of the workshop, participants highlighted the importance of:

- participating actively in collective decision-making spaces;
- promoting innovations that overcome traditions;
- diversifying production in order to reduce vulnerability to extreme weather events;
- accessing climate information, training and technical assistance; and
- overcoming limited access to resources, among other conclusions.

Information provided by the respondents was analyzed at the household and individual level. In total, women from 826 establishments, drawn from all 19 Departments (administrative regions) of Uruguay, responded to the study survey (see Table 1). The most common type of household represented in the survey was two-parent with children (47 percent of study sample). While 40 percent of the interviewees reported a low level of education themselves (primary school incomplete or completed), 40 percent of family farm respondents and 58 percent of medium-sized farm respondents reported that at least one member of the household had completed technical, high school, or university education.

Table 1

Distribution of survey respondents by type of farm and sector

Sector	Type of farm		Total
	Family	Medium-sized	
Livestock	463	41	504
Dairy	121	20	141
Horticulture	181	0	181
Total	765	61	826

Key findings

Following are some of the key findings that emerged from the study, based on the full analysis (MGAP, 2018b).

Women in livestock, dairy and horticulture are aware of climate change and climate variability, but feel they lack the tools and knowledge to respond. The study found that women are aware of climate change – at least 80 percent of interviewees had heard of or read about the topic. A majority of respondents perceive the effects of climate change on production to be some or a lot, with higher responses on family farms and in the dairy and horticulture sectors (see Table 2). The main change in climate observed by family farmers in dairy and livestock

was drought, whereas in the horticulture sector, winds and storms were reported by the majority of respondents. Producers from medium-sized establishments mentioned increased uncertainty above other changes. Respondents generally believe that they lack the skills, tools, and information to respond adequately. Because they perceive climate change as out of their control, they find it difficult to imagine a future where climate-related production losses can be avoided.

Table 2

Perception of the impacts of climate change: how much would you say that the problems associated with climate change affect production on your farm?

	Type of farm		Sector			Average
	Family	Medium-sized	Livestock	Dairy	Horticulture	
A lot	27%	20%	22%	34%	35%	27%
Some	43%	41%	40%	47%	45%	42%
Subtotal of A lot + Some	70%	61%	62%	81%	80%	69%
A little	22%	28%	27%	13%	15%	22%
Very little / None	6%	3%	8%	3%	3%	6%
Don't know	2%	8%	3%	3%	2%	3%
Total	100%	100%	100%	100%	100%	100%

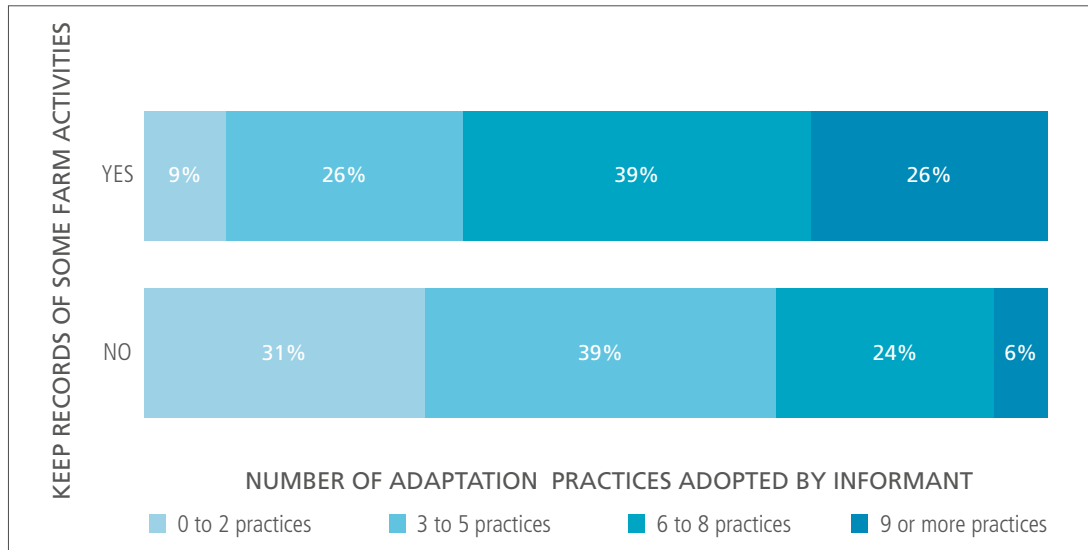
Women are engaging in adaptation, but may not refer to it as such and often do not have the financial resources to implement desired adaptation practices. When asked to name adaptation practices they implement, 53 percent of respondents reported adopting no practice; those who did name specific measures focused on water for animals and irrigation, as well as providing shade. When prompted with specific adaptation methods, the percentage of respondents who reported adopting no practices dropped to 4 percent, suggesting that there exists a basic understanding of measures that can be effective for adaptation, while indicating that female farmers tend to lack a conceptual framework to call them as such, or to evaluate and prioritize them. Forty percent of informants reported thinking about an adaptation practice which they did not end up implementing; 80 percent of these explained that the reason was due to economic/financial constraints. This situation is confirmed by other research in Uruguay (MGAP-FAO, 2013) and Colombia (Twyman, Muriel and Clavijo, 2016), which found that the greatest barriers to incorporating adaptive changes were high costs of the known options, lack of resources, and difficulty obtaining necessary capital.

Participation in decision-making is linked to greater adoption of adaptation measures.

The survey found that more adaptation measures are implemented in farms where women participate in decision-making processes related to agricultural production. Of the women who participate 'a lot' or 'some' in farm decisions, 87 percent adopt three or more adaptation practices, whereas the same adoption rate is reported by 81 percent of women who participate 'a little' and 79 percent who participate 'very little'. Adoption practices vary by sector; in livestock "adjust the load/sell livestock" and "shade and/or shelter for livestock" are the most commonly-adopted practices, while in the dairy sector, "produce and store fodder or supplements" and "water supply system for animals" are the most popular responses. In the horticulture sector "water for irrigation of crops" and "seek technical advice" are the most commonly-adopted practices. The qualitative phase of the study confirmed the link between women's participation in decision-making and adoption of measures, noting that women had a greater incentive to innovate when agricultural production increased or their family's quality of life improved. Adoption of adaptation measures was also correlated to higher education levels of at least one family member, record keeping, and presence of certain socio-economic goods in the house such as internet and means of transport. In all cases, the survey respondents from farms where one member had complete or incomplete tertiary or university education, that engage in more record keeping and who have and/or use socio-economic resources had higher rates of adoption of adaptation practices (see Figure 1).

Figure 1

Number of adaptation practices adopted according to whether records are kept of some farm activities



Gender relations can affect the adoption of adaptation options. More than half the informants explained that their low or non-participation in different activities was due to the inequitable gender relations in production and the sexual distribution of workloads. Many of the informants could not visualize the possibility of their influencing and introducing changes on their farms, including adaptation options. The qualitative phase found that women’s farm labor was classified as “help” and was valued as an extension of domestic activities. It also found that men typically made production decisions; the social norm of consulting women on decision-making essentially perpetuates their subordinate position by barring them from gaining the knowledge, building the trust, or forming the opinions needed to be leaders. This is further compounded by physical isolation, which precludes the exchange of information and experiences with others.

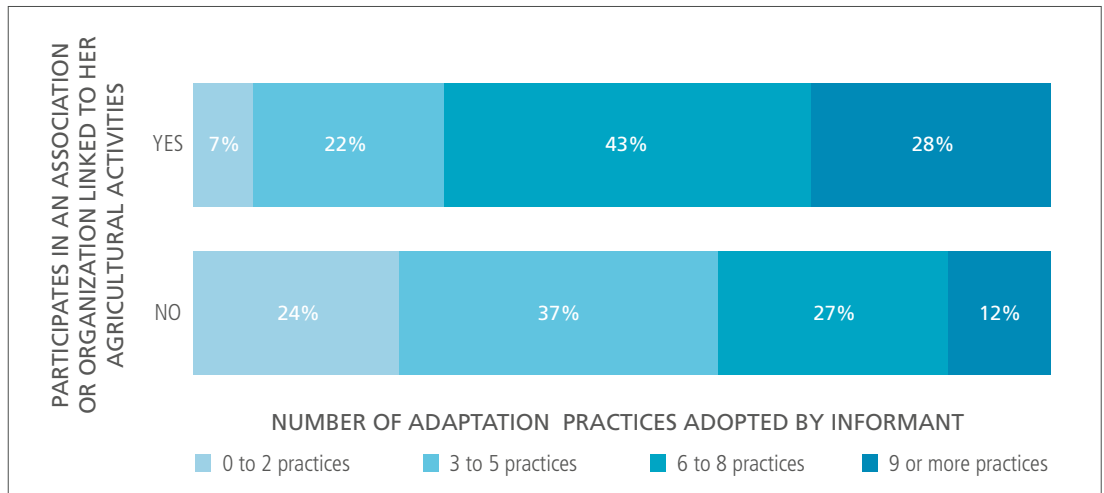
Participation in groups encourages adoption of adaptation measures. The study found a link between women’s higher adoption rates and their participation in organizations or associations linked to their agricultural practices: 71 percent of women who participate in groups adopt 6 or more practices, whereas the same adoption rate is observed in only 39 percent of women who do not participate in groups (see Figure 2). The types of groups that respondents participate in include rural cooperative societies, producers’ groups, rural development associations, rural development boards and rural women’s groups. The study found that barriers to participation in groups and associations were related to geographic isolation and lack of access to transportation. Road and bridge interruption during extreme weather events also resulted in further isolation. The lack of good public transportation was found to negatively impact the quality of life, particularly compounding women’s isolation and their difficulties participating in collectives.

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Figure 2

Number of adaptation practices adopted according to whether the informant participates in an association or organization linked to her agricultural activities

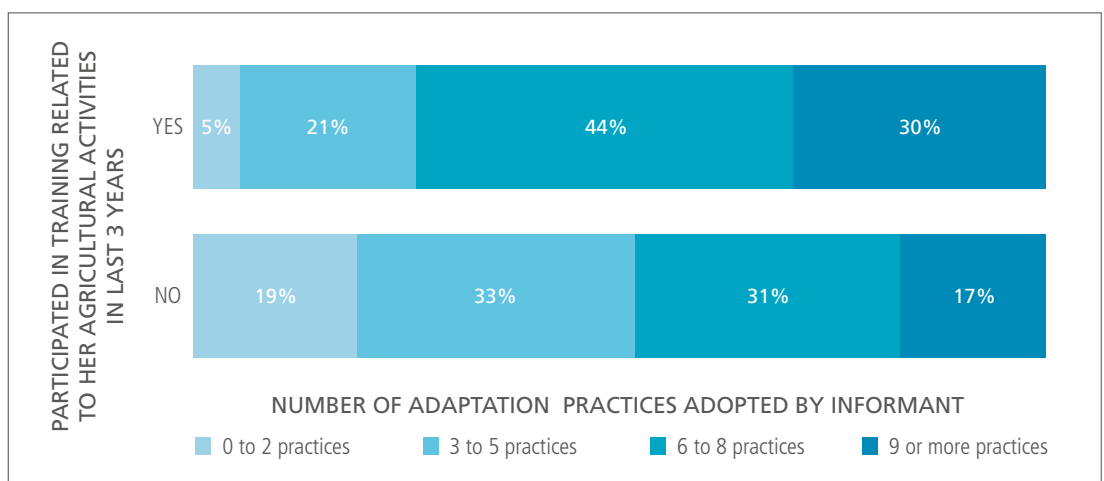


Outside support has a positive influence on women’s adoption of adaptation measures.

Adoption of six or more adaptation practices was reported by 74 percent of women who had attended a training, compared to 48 percent who had not (see Figure 3). Further, higher rates of adoption of adaptation measures (six or more) were reported by 71 percent of women from households that had benefited from MGAP programs, compared to 41 percent of women whose households had not benefited (see Figure 4). These results suggest that trainings and MGAP programs are having their intended impact, however the survey also revealed that 47 percent of women in households that received a visit from a technical advisor were not included in the meetings. The survey also revealed that the main source of information for adaptation measures are not necessarily government programs, but are instead fellow farmers and neighbors whose tangible experiences serve as a model.

Figure 3

Number of adaptation practices adopted by those who did and did not attend trainings related to agricultural activities in the last three years



Recommendations for adaptation planners in Uruguay’s agriculture sectors

The results of the study were analyzed by a national gender expert with the goal of providing recommendations of which information to collect in order to track gender issues in agricultural and rural statistics. The recommendations also aim to support adaptation planning in the agriculture sectors that promotes equal opportunities for women and men to enhance their resilience.

In addition to recommendations for specific fields in agricultural development (see Box 4), the analysis suggests that future plans and projects designed to support adaptation in the cattle, dairy, and horticulture sectors should aim to close the gender and age gaps in these areas in order to increase the likelihood of the adoption of adaptation practices. This could mean targeting households which are less likely to take up adaptation practices, such as those with fewer socio-economic resources or lower educational levels. It also means recognizing that women’s lower participation rates are linked in many cases to isolation and/or a lack of awareness, or an inability to visualize the influence they can have (lack of empowerment). These are all social conditions that can be overcome. Reducing isolation – such as through supporting the groups women participate in – will in turn open opportunities for increasing awareness and participation in trainings, and eventually uptake of adaptation practices. Outreach to youth should not be overlooked, as encouraging their interest and engagement in farm management is a necessary step in establishing the continuity of family farms. The rural dialogues approach (see Box 3) used in this study is an effective means to ascertain the climate change perceptions and priorities of rural female farmers, youth, and other key stakeholders.

Box 4

Recommendations for units of MGAP on collecting information to track gender issues in agricultural and rural statistics

Field	Recommendations
Agricultural Statistics	<p>The following recommendations were proposed for the creation of gender-sensitive indicators in the agricultural census; see Box 5 for examples of indicators for tracking adaptation in the agriculture sectors that incorporate gender:</p> <ul style="list-style-type: none"> • Develop a more robust data collection system that could allow for better data on household dynamics from both gender and generational perspectives. Currently data on household members are surveyed in relation to the partner/producer using three categories: i) partner/producer; ii) family member of the producer; and iii) others. • Highlight activities related to production for household consumption as women are usually responsible for this often “invisible” and “unpaid” work, e.g. production of vegetables, poultry, and eggs for home consumption, but which may also be sold to neighbors or in local markets. • Investigate asset ownership (e.g. land), including by sex of owner(s), not just the agricultural unit. • Survey the educational level of the main managers and owners of the farm. (more education was associated with more adaptation measures employed). • Include socioeconomic capacity assessment and participation in MGAP programs in the agricultural census and the Register of Family Producers.

Field	Recommendations
Rural Development Division (DGDR)	<p>Survey findings point to the need to continue supporting the engagement of women and strengthening their participation in groups and decision-making to improve adaptation measures in agriculture. Additionally, the dairy sector is incorporating many adaptation measures. This is a sector that experiences higher participation of women yet greater gender inequality in the distribution of work. The study provides a number of recommendations, some of which should be strengthened with the coordinated participation of various institutions, including:</p> <ul style="list-style-type: none"> • Expand the offer to, and lower access barriers to, training courses according to the interests of those needing training (including women). • Increase the number and dissemination of awareness and empowerment workshops for women. Most respondents expressed barriers to participation in decision-making based on gender stereotypes and roles. • Design and execute programs that promote the transfer of farms to new generations. Respondents indicated the high percentage of cases where there is no effort to ensure continuity of farming across generations.
Communication and outreach	<ul style="list-style-type: none"> • Optimize the communication about and outreach of support programs for women as most women surveyed indicated that they did not know about these programs.
Agricultural Policy	<ul style="list-style-type: none"> • Incorporate a gender perspective in impact evaluations to identify, quantify, and demonstrate for policy makers the positive impact of women's participation in adaptation efforts in the agriculture sectors as well as other areas under MGAP programmes.
Other	<ul style="list-style-type: none"> • Elaborate technical and administrative procedures incorporating a gender approach in such a way that all the secondary information collected through MGAP activities can be disaggregated by sex. Because MGAP statistics have been blind to gender, crop surveys and other statistics collection tools are not collecting this info. However, the Rural Development division has a gender strategy with gender specialists and collection of disaggregated info. Other recommendations include: capacity building activities so that technical advisors and extension workers are aware of gender issues and the importance of including women and other family members in discussions.

Box 5

Examples of adaptation indicators for the agriculture sector that integrate gender issues

Indicator name
Number of producers that implement climate change adaptation measures (for example, natural grassland management for livestock production, irrigation and soil conservation management for crop production and on-farm food and feed production for dairy systems), disaggregated by sector, type of farm, and gender.
Interpretation
Producers can respond to climate change by implementing practices that reduce climate vulnerability and increase adaptation capacity at the farm level.
Calculation
Sum – Number of producers that implement adaptation measures drawn from administrative records of the Ministry of Agriculture and Agricultural Census.
Frequency
Annual where possible
Scale
Per sector (livestock, crop production, dairy, horti-fruticulture), type of farm (family farm, medium, large) and gender.

Indicator name
Number of producers that have received climate change adaptation training, disaggregated by sector, gender and group.
Interpretation
Training is a fundamental component for the integration of new production practices for climate change adaptation. This indicator can be analyzed together with indicators of implementation of climate change adaptation practices to evaluate the impact of trainings and to analyze barriers to adaptation.
Calculation
Simple sum of the participants in capacity building activities organized by all governmental and nongovernmental institutions.
Frequency
Annual
Scale
National and regional, disaggregated by agricultural sector, gender, vulnerable groups.

Indicator name
Number of producers associated with farmer organizations, disaggregated by sector, type of farm, gender.
Interpretation
Membership in farmer organizations supports learning processes by favoring networking, capacity building activities, access to information about new or improved farming techniques. It can increase the adaptive capacity to climate change of producers in general, and women and vulnerable sectors in particular.
Calculation
Sum of members of groups or organizations drawn from administrative records and farmer organizations.
Frequency
Annual
Scale
National and regional, disaggregated by agricultural sector, gender, type of farm (family farm, medium, large).

Insights for adaptation planners

For planners involved in the process of establishing adaptation plans and policies, either within the National Adaptation Plan framework or other processes, a number of lessons can be drawn from this study on the kind of information that is needed to conduct a gender analysis to inform gender-responsive adaptation planning. The Uruguay experience also indicates what about gender should be measured as part of adaptation monitoring.

- 1. Inter-institutional collaboration on gender analysis is needed at the outset of adaptation planning.** Inter-institutional collaboration was central to enriching the design of the Uruguay study, guaranteeing the commitment of different actors, and ensuring better use and dissemination of results. However, this process also required negotiation and mediation among stakeholders to satisfy different interests, assuming at the same time the technical requirements and limitations to which a survey form must adhere.

- 2. Preparing an adaptation plan can be made more robust by incorporating gender analysis.** The quantitative and qualitative methods discussed here revealed key information about the past, current, and future adaptation strategies of female and male actors in the agriculture sector, while revealing the diversity of experiences depending on farm size, sector, socio-economic group, location and age. The information collected in the survey (e.g. adoption of adaptation practices, roles in decision-making, visits by technicians, participation in trainings) and in the qualitative phase (e.g. continuity, isolation, gender relations, empowerment, training and its impact) can help in targeting resources to promote adaptation practices among different groups.
- 3. Implementation of an adaptation plan should address the gender and inter-generational relations which can affect adoption of adaptation options.** The findings of the data analysis indicate that gender relations, particularly in the context of household decision-making and participation in trainings and groups, can affect the adoption of adaptation actions. The data also suggests that there is a significant age difference in willingness to undertake farming activities, with youth outmigration posing a significant challenge for the continuation of rural activities. The data suggests that more adaptation practices are adopted when women and youth are more active in decision-making, however encouraging their participation is not as straightforward as increasing numbers of trainings or visits by technicians. Changes in social norms to close gender gaps are needed as part of adaptation plan implementation. Addressing issues of empowerment, isolation, and inclusion will be critical inputs to ensuring uptake of adaptation options.

4.

References

- Batthyány, K.** 2004. *Cuidado infantil y trabajo: ¿un desafío exclusivamente femenino? Una mirada desde el género y la ciudadanía social*. Montevideo, Centro Inter-americano de Investigación y Documentación sobre Formación Profesional (CINTERFOR/OIT).
- Bryan, E., Kristjanson, P. & Ringler, C.** 2015. *Why paying attention to gender matters for climate change adaptation*. IFPRI (available at www.ifpri.org/blog/why-paying-attention-gender-matters-climate-change-adaptation).
- Doss, C. & Kieran, C.** 2014. *Three things you need to know about sex-disaggregated data*. CGIAR Research Program on Agriculture for Nutrition and Health (available at <http://a4nh.cgiar.org/2014/05/05/three-things-you-need-to-know-about-sex-disaggregated-data/>).
- FAO, UNDP.** 2017. *Integrating Agriculture in National Adaptation Plans: Uruguay*. Rome (available at www.fao.org/in-action/naps/partner-countries/uruguay/en/ and in Spanish at www.fao.org/3/a-i8237es.pdf).
- FAO.** 2016. *El estado mundial de la agricultura y la alimentación: Cambio climático, agricultura y seguridad alimentaria*. Rome (available at www.fao.org/3/a-i6030s.pdf).
- López Feldman, A. J., & Hernández Cortés, D.** 2016. Cambio climático y agricultura: una revisión de la literatura con énfasis en América Latina. *El trimestre económico*, 83(332): 459-496 (available at <https://dx.doi.org/10.20430/ete.v83i332.231>).
- MGAP.** 2018a. *Registro de productores familiares agropecuarios*. Montevideo (available at www.mgap.gub.uy/unidad-organizativa/direccion-general-de-desarrollo-rural/tramites-y-servicios/registro-dela-produccion-familiar).
- MGAP.** 2018b. *Estudio sobre Estrategias de Adaptación al Cambio Climático y Género para el Plan Nacional de Adaptación a la Variabilidad y Cambio Climático para el Sector Agropecuario (PNA-Agro)*. Montevideo (available at www.mgap.gub.uy/sites/default/files/multimedia/encuesta_genero_y_vcc_pna-agro_.pdf).
- MGAP-FAO.** 2013. *Clima de cambios. Nuevos desafíos de adaptación en Uruguay. VOLUMEN II. La percepción de productores y técnicos agropecuarios. Resultado del FAO/TCPIURU/3302*. By Equipos Mori. Montevideo (available at www.fao.org/climatechange/84982/es).
- OECD.** 2017. *Social Institutions and Gender Index (SIGI): Uruguay Report*. (available at www.genderindex.org/wpcontent/uploads/files/datasheets/UY.pdf).
- Singha, A., Svensson, J. & Kalyanpur, A.** 2010. The State of Sex-disaggregated Data for Assessing the Impact of Climate Change. *Procedia Environmental Sciences*, 1(2010): 395–404 (available at https://ac.elscdn.com/S1878029610000289/1-s2.0-S1878029610000289-main.pdf?_tid=4ea96929-4b5b-4448-bb7faa895fa0ad14&acdnat=1530652794_be12fdf4bf13d399439911527424f376).
- Tommasino, H., Cortelezzi, A., Mondelli, M., Bervejillo, J.E. & Silva Carrazzone, M.E.** 2014. *Tipología de productores agropecuarios: caracterización a partir del Censo Agropecuario 2011*. MGAP-Anuario 2014, Montevideo, OPYPA.
- Twyman, J., Muriel, J., Clavijo, M.** 2016. *Reporte Encuesta de Género: Cauca, Colombia*. Reporte CCAFS. Programa de investigación de CGIAR en Cambio Climático, Agricultura y Seguridad Alimentaria (CAAFS). Copenhagen (available at www.ccafs.cgiar.org).
- UN Women.** Uruguay (accessed 30 May 2019) <http://lac.unwomen.org/en/donde-estamos/uruguay>
- World Bank.** 2016. *More and better gender data: A powerful tool for improving lives*. Washington, DC (available at www.worldbank.org/en/results/2016/05/09/more-and-better-gender-data-a-powerful-tool-for-improvinglives).
- World Bank-CIAT.** 2015. *Climate-smart agriculture in Uruguay*. CSA Country Profiles for Africa, Asia, and Latin America and the Caribbean Series. Washington, DC (available at <https://cgspace.cgiar.org/handle/10568/69546>).
- World Economic Forum.** 2017. *Global Gender Gap Index*. Cologne/Geneva (available at www3.weforum.org/docs/WEF_GGGR_2017.pdf).



Additional resources

ADB. 2013. *Toolkit on gender equality results and indicators*. Mandaluyong City. (available at www.adb.org/documents/tool-kit-gender-equality-results-and-indicators).

Batthyány, K. & Montaña, S. (Coords.). 2012. *Construyendo Autonomía: Compromisos e Indicadores de género*. Serie Libros de la CEPAL No. 100, Santiago.

Gallo, A. & Peluso, I. 2013. Estrategias sucesorias en la ganadería familiar un enfoque de género. *Revista de Ciencias Sociales*, DS-FCS: 26(32) : 19-34 (available at www.colibri.udelar.edu.uy/bitstream/123456789/6835/1/RCS_Gallo_2013n32.pdf).

Mandar-Irani, M., Parada, S. & Rodriguez, K. 2014. Las mujeres en la agricultura familiar. In Salcedo, S. & Guzmán, L.. *Agricultura familiar en América Latina y el Caribe: Recomendaciones de política*. FAO, Santiago de Chile.

World Bank and FAO. 2010. *Global Strategy to Improve Agricultural and Rural Statistics*. Washington, DC (available at www.fao.org/docrep/015/am082e/am082e00.pdf).

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➔ **International Climate Initiative (IKI)**
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