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Master's Thesis of International Studies

**DIGITAL REVOLUTION OR DIGITAL DISPARITIES? A
GENDER STUDY APPROACH TO ICT ACCESS AND
USE AMONG THE AGRICULTURE SECTOR IN
ECUADOR**

디지털 혁명인가 디지털 격차인가? 에콰도르 농업 부문의
ICT 접근 및 사용에 대한 성 연구 접근

August 2023

**Development Cooperation Policy Program
Graduate School of International Studies
Seoul National University
International Cooperation**

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**DIGITAL REVOLUTION OR DIGITAL DISPARITIES? A
GENDER STUDY APPROACH TO ICT ACCESS AND
USE AMONG THE AGRICULTURE SECTOR IN
ECUADOR**

A thesis presented

By

Josue Patricio Lopez Telenchana

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Master of International Studies

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Abstract

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Recent evidence has shown that Information and Communication Technologies (ICTs) can foster positively in the development of the agriculture sector. Furthermore, research suggests that providing equal access and mechanisms of inclusion to ICTs for agriculture women and men can strengthen and promote economic and social progress, as well as, food security in our countries.

This situation needs to be visibilize especially in developing countries, where agriculture is the main source of economic support for both men and women. However, due to cultural and social constraints research and studies indicate that women are mostly marginalized when it comes to having equal access to ICTs. Moreover, few research and studies have focused on and examined ICT access and use among women and men farmers, and if there is an existing gender disparity in the Ecuadorian agriculture sector. On that note, this study will critically examine the latter, from a gender study approach. Hence, this paper has gathered data from a total of 51 respondents from the Coastal regions of Ecuador using structured questionnaires.

Furthermore, this research will have key dialogues with decisive government officials from the Ministry of Agriculture and Livestock, as well as, International Organization specialists and experts to explore the activities and plans their organizations are implementing regarding gender and ICTs in the Ecuadorian agriculture sector. Overall, both study methods will help this paper to further understand the ICTs that Ecuadorian farmers are currently using, as well as the possible causes and constraints that female farmers have concerning access to ICTs.

Keywords: Ecuador, Information and Communication Technologies, Gender, Access, Agriculture, Disparities, Inequalities

Student Number: 2021-22753

국문초록

디지털 혁명인가 디지털 격차인가? 에콰도르 농업 부문의 ICT 접근 및
사용에 대한 성 연구 접근

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최근 연구들은 정보통신기술(ICT)이 농업의 발전을 선도하고 있음을 증명하였다. 또, 농업에 종사하는 여성과 남성에 대해 ICT 기술에 대한 동등한 접근 권리를 제공함으로써 식량 안보와 경제적, 사회적 진보를 추진할 수 있음이 드러나고 있다. 이러한 상황은 농업생산물이 남녀 구분없이 생계의 원천이 되는 개발도상국에서 주목할 필요가 있다. 농업에 종사하는 여성은 문화적, 사회적 제약으로 인해 남성에 비해 ICT 기술에 대한 접근성이 낮은 것으로 알려져 있다. 게다가, 에콰도르에서는 여성과 남성 농부들 사이의 ICT 접근성 차이와 농업 전반에 걸친 성별에 의한 격차에 대한 연구가 거의 전무하다. 이에 본 논문은 농업 전반에 내재한 성별 격차를 비판적으로 검토하기 위해 구조화된 설문지를 사용하여 에콰도르 해안 지역의 총 51명의 응답자로부터 데이터를 수집했다. 또한, 본 논문은 농림축산부와 국제기구에 근무하는 전문가들을 인터뷰하여 해당 기관에서 에콰도르의 농업분야의 성별 격차와 정보통신기술의 한계를 개선하기 위해 추진하고 있는 활동에 대해 폭넓게 다루었다. 설문 데이터와 인터뷰라는 두가지 연구 방법을 통해 에콰도르 농부들이 현재 가장 많이 쓰고 있는 ICT 기술을 알아보고, 여성 농부들의 ICT 접근을 저해하는 장애물들을 파악하였다.

키워드: 에콰도르, 정보 통신 기술, 성별, 액세스, 농업, 격차, 불평등
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Table of Contents

Abbreviations	6
Chapter 1. Introduction	7
<i>1.1 Aim & Objectives</i>	9
<i>1.2 Research Questions</i>	10
Chapter 2. Background	11
<i>2.1 Gender, ICTs and agriculture</i>	11
<i>2.2 Constraints regarding ICTs, gender, and agriculture</i>	12
<i>2.2 Policies related to ICTs, gender, and agriculture</i>	13
<i>2.4 Ecuadorian women and agriculture</i>	16
Chapter 3. Methodology	17
Chapter 4. Results	19
<i>4.1 Online Questionnaire</i>	21
<i>4.2 Interviews with Experts</i>	21
<i>4.2.1 Eduardo Izaguirre</i>	21
<i>4.2.3 Agustin Zimmerman</i>	22
<i>4.2.4 Carolina Salazar</i>	23
Chapter 5. Discussion & Conclusion	25
Chapter 6. Recommendations	27
Bibliography	29
Tables and Figures	32
Apendixes	35

Abbreviations

BPFA	Beijing Platform for Action
BPAS	Good Agriculture Practices
BPM	Good Manufacture Practices
CGIAR	Consortium of International Agricultural Research Centers
FAO	Food and Agriculture Organization
IICA	Inter-American Institute for Cooperation on Agriculture
ICTs	Information and Communication Technologies
UN	United Nations
UPAS	Agricultural Production Units
USAID	United States Agency for International Development
MAG	Ministry of Agriculture and Livestock of Ecuador

Chapter 1. Introduction

It can be argued that in the last decades there has been a proliferation of Information and Communication Technologies (ICTs). This digital revolution has provoked a great impact on the lives of different people around the world. For instance, this revolution has changed the way we interconnect with people, the way we learn, the way we work, as well as, the way we access information.

When discussing ICTs, they can be all forms of communication technologies that allow people to access, retrieve, store, send, receive, and alter digital information. Examples of these technologies include the internet, wireless networks, mobile phones, computers, software, video conferencing, social networking, and other media applications and services. (FAO, 2022).

It is important to mention that ICTs not only have caused a great impact in the urban areas (FAO, 2018) but have also contributed to the rural and agriculture sectors. According to the Food and Agriculture Organization -FAO- (2018) and Jain, Ahuja and Kumar (2012) the proliferation of the latter technological innovation has caused a significant impact on the development of the agriculture sector. For instance, Odame, Hafkin, Wesseler, and Boto (2002) mention that ICTs can address and tackle in the agriculture sector the following constraints: lack of access to education and health services, lack of productive opportunities, isolation from government

institutions, and lack of information.

Overall and by stating some of its advantages, it can be said that access to ICTs should be primordial for everyone. And while the digital revolution has reached rural areas in many developing countries, it is urgent to remark that the rural-urban digital divide remains, and this gap is bolder for agriculture women who currently face this digital, and gender divide (Stratigea, 2011; Palitza, Erwin, Godia and Amuriat, 2022). Hence, the latter inequality needs to be addressed, since it is causing some members of society and areas of the world to be left behind.

Moreover, it is important to indicate that ICTs are associated with social, cultural, and environmental factors. Among these factors, gender, a constituted and constituent factor of social action, affects both the design of technologies and their incorporation into new processes and products, as well as, the effects of its use and access.

To explore the latter, a structured questionnaire was administered to female and male Ecuadorian farmers, while online interviews complemented the latter questionnaire. It is important to indicate that the interviews were conducted with high-ranking public officials from the Ministry of Agriculture, as well as, representatives of NGOs and International Organizations, such as FAO and Rikolto. Their vision is highly fundamental to understanding the role they have as the main stakeholders of the agriculture sector, to understand the current policies, projects, plans, and

views regarding this important topic.

Finally, this research study will also contain an overview of gender in agriculture, with an emphasis on the Ecuadorian agriculture sector. Moreover, this paper will include the importance of ICTS in the agriculture sector and the current gender constraints in agriculture. To conclude, this paper will include a qualitative data analysis, which will indicate the results of this research.

The outcomes and significance of this paper will foster the design and creation of projects, initiatives, and public policies that can boost agricultural productivity and promote women's empowerment.

1.1 Aim & objectives

This research paper intends to investigate if in the Ecuadorian agriculture sector this gender gap exists. Additionally, it will be necessary to investigate the relationship between gender and ICTs and their use, as well as to comprehend the present barriers that women face in acquiring access to ICTs.

Objectives:

- Determine the respondents' socioeconomic traits in relation to their use of ICTs.
- Establish gender access and use of ICTs.
- Explore and analyze the current policies and programs related to

ICTs in the agriculture sector (Government, International Organizations, NGOs)

- Explore and analyze the reasons for the disparity in gender access to ICTs

1.2 Research Questions

Hence, the following questions will be addressed:

- What ICTs are frequently used in Ecuadorian Agriculture?
- Are there any inequalities between access to and use of ICT tools by men and women (e.g., mobile phones, radio, computer, and internet)?
- What patterns can be visible and analyzed? If any, why do you think these disparities exist?
- Do you think women face barriers to accessing ICTs? What are the factors that hinder their access to ICT? What do you think the barriers are?

Chapter 2. Background

2.1 Gender, ICTs and agriculture

It is relevant by indicating the importance and essential contribution that women have made towards agriculture and its rural and economic development. According to the Inter-American Institute for Cooperation on Agriculture (IICA), if women produced under the same conditions as men, there would be a reduction in hunger of between 12% and 17%.

Nonetheless, according to FAO (2018), rural women tend to face extremely complex households and due to social norms and roles, they tend to do other activities such as: collecting fuel and water, caring, marketing and trade, preparing food, and caring for livestock, among others.

In addition to these constraints, agricultural women also are involved in agriculture production. However, they currently face challenges in the agriculture sector, for instance, they struggle with less access to land rights, fertilizers, credit, training, legal advice, ICTs, and technical resources.

Regarding the topic of this study, literature has shown that if the same ICT access opportunities are given to farmers (Women and men), then higher the chances to improve their agricultural activity. Empirical evidence indicates a positive relationship between phone use and increased agricultural activity (Quandt et al., 2022; Jain, Ahuja, and Kumar, 2012; FAO, 2018; Adejo, Idoka and Adejo, 2013). The reasons for the latter are due to the following usages farmers did with their phones:

- Acquiring agricultural inputs
- Accessing agricultural information
- Facilitate financial services
- Improve coordination regarding supply chains
- Efficient interactions between key stakeholders in the value chain

On the same note, ICT projects in India (World Bank, 2017) such as “Green Sim” allow male and female to receive free voicemail messages with different recommendations, suggestions, feedback on a range of agricultural topics. This project also has the possibility for farmers to access to a helpline, which is available to ask questions. Moreover, the Self Employed Women’s Association of India (World Bank, 2017) has a program for female farmers, in which they can freely subscribe to access to information regarding current and future commodity prices. The latter is sent through a free SMS so that female farmers can access this vital information. These examples can provide evidence that access and use of ICTs in the rural areas can help boost women’s economic empowerment, as well as, entrepreneurship.

2.2 Constraints regarding ICTs, gender, and agriculture

As previously indicated, it is important to highlight that ICTs have the ability to reduce the socio-economic differences that commonly exist between men and women living in rural areas, and offer several benefits for women in reference to agricultural production, however, it is necessary to

understand the role of women in society. As previously stated, despite the fact that women produce the majority of our food crops, women remain disadvantaged in most parts of the world in terms of ownership of agricultural land, access to property income, information, and the capacity to share and learn (FAO, 2018).

Hence, it is important to consider these factors when assessing the complex dimensions of gender and how these affect women's access to ICTs in agriculture. On that note, recently there is a growing number of literature and studies that focus on gender and ICTs. Most of these studies have discussed that social norms and culture are one of the key factors that trigger and foster the existing gender gap in ICTs (Becker, 2020).

Other studies suggest that the main factor in this inequality between women and men is due to the lack of gender based public policies in the Ministries of Agriculture. Regarding this specific factor, USAID (1984) has found that government extension technicians tend to approach male farmers to educate them about the use of modern agricultural technology. However, there is no second-hand knowledge shared with their male peers.

Education and infrastructure are other factors that (Odame et al, 2002) are highlighted which can cause women to be marginalized in their access to ICTs. Limited access to infrastructure in agricultural areas, as well as, good quality computers limits women and men to access and learn ICT skills.

Poverty is also seen as another factor. It is widely known that access to computers, cell phones, and the internet requires money. The latter ICTs can be extremely expensive for farmers and producers, especially the medium and small ones.

2.3 Policies related to ICTs, gender, and agriculture

To have a broad overview of how the efforts of civil society, governments, and public policies have been advancing in terms of the full insertion of women in the field of information and communication technologies (ICT), it is necessary to consider the background and debates generated since this issue was included in the discussions on women's rights at the IV World Conference on Women (Beijing, 1995). During this important event, women demanded greater participation in the development of ICTs and political decisions regarding access, operation, and governance of the internet, as part of their citizen rights in a globalized world. It has to be mentioned that the Beijing Platform for Action (BAP) responded to this call through resolutions that established the need for women to strengthen their skills, their knowledge, and their possibilities of access and appropriation of ICTs. The previous is extremely important since this was accomplished to achieve progress on the path towards equal opportunities and equity to access these technologies.

In the year 2000, women's movement and governments began to assess what had happened in the first five years of implementation of the

BAP. The latter study discovered that policies and programs for the creation and distribution of ICTs neglected gender inequities and variances. On that note, it became clear that there was a need to begin investigating and putting into practice measures to prevent new types of exclusion, which would guarantee that women and girls would have equal access to and opportunities in the advancement of science and technology, as well as their integration into the information society. Consequently, various governments assumed specific commitments in terms of public policies, programs, and institutions for ICTs.

An example of positive implementation regarding effective policies can be reflected in the Indian case, since its government promoted rural digital services by making alliances with the private sector to create IT infrastructure in rural kiosks (World Bank, 2017). The main goal was to provide to rural farmers government services in an electronic way, for instance farmers could have access to computers to obtain land records.

2.4 Ecuadorian women and agriculture

The context is similar in Ecuador, 61% of our rural women participate in agriculture production, actions, and activities. However, the III National Agricultural Census (INEC 2000), indicates the following:

Of the 842,882 agricultural production units –UPAS, that exist in the country, 25.4% are in the hands of women producers and 74.6% of men.

Of the total UPAS run by women, 46.7% have an area of less than 1 ha. and

16.1% less than 2 hectares, that is, 62.8% of women produce in UPAS less than 2 hectares.

In addition, national policies in Ecuador do not often recognize their needs and contributions. Not doing the latter, affects and has a negative impact on rural women's quality of life and well-being. It also undermines their capacities, potentialities, and rights.

Furthermore, and focusing primarily on ICTs access, it is important to note that Ecuador is undergoing a digital transformation. For instance, data from 2021 shows that 57.3% of the population has internet access, 66.9% in urban areas and 42.9% in rural areas. That means that there are 10.17 million internet users in Ecuador (OECD, 2022). Regarding active mobile broadband subscriptions (per 100 people) Ecuador has increased from 8.8 in 2008 to 77.8 in 2021. Regarding owning a cellphone, data shows that buying one can be more expensive than in other Latin American regions (GSMA, 2022). Hence, it is most likely to only find one cellphone per agriculture household, and usually, men are the ones who own the cellphone (Quandt et al, 2022).

It is important to mention that there is a lack of studies or even data regarding the ICTs gender gap in the Agriculture sector of Ecuador. Nonetheless, studies suggest that lack of data tends to be a frequent limitation for researchers when exploring the agriculture sector (GSMA, 2022).

Chapter 3. Methodology

This research has been carried out in the Coastal regions of Ecuador. It is important to note that the tentative area for this research proposal has been selected since agricultural activities are done based on the gender division of labor. Furthermore, in the previously mentioned region, individuals are mostly small-scale farmers, who are involved in the production of crops and animals. Moreover, the Coastal region of Ecuador is considered to be the most important region due to its agricultural activity and in which most of the key and important crops are produced.

On that note, this study will use qualitative and quantitative approaches, which will allow this study to present a deep understanding of this important topic. To accomplish the latter, this paper will use structured online questionnaires, which will be administered to a sample population of the small and medium-scale female and male Ecuadorian farmers. Furthermore, In-depth one-on-one interviews will be used with Government officials, Nongovernmental Organizations, and International Organizations' directors/technicians.

The qualitative approach will be used in this paper since it will provide key information relevant to a study, also this method is known to facilitate different levels of language and wording (Coughlan, 2009). In addition to the latter, this approach will be used since it is necessary to have and collect participants' experiences and points of view, as well as, their

concerns (Coughlan, 2009). It is imperative to indicate that the questions asked to the participants were obtained from the *Gender and Information Communication Technology Survey Toolkit* (USAID, 2022). The latter tool was designed by the United States Agency for International Development (USAID), and it has been an important mechanism that allows researchers to gather data on gender and ICTs' projects that are been executed by different international partners.

Key stakeholders participated in this process and its analysis and point of view regarding this important matter were essential. Some answers had similar results when compared with the questionnaire data. Moreover, it also highlighted the importance to take the current project and activities to a larger extent of territory, however, to implement the latter, funding is necessary.

Regarding the online questionnaire, 51 respondents have completed the survey. Taking the latter into consideration, the next part of this paper will indicate the current information and data that has been gathered.

Chapter 4. Results

Before explaining the results that this research has encountered, it is essential to indicate that the tables and graphs that will be mentioned in this part of the paper are located at the tables and figures section.

The general descriptive results, which are obtained from table 1, reveals that 62.7% of the questionnaire participants were between the ages 25 to 45 years, while 37.3% were found to have fallen within the ages 46 and above. This could be interpreted that the majority of the respondents are at their young age which in turn will enable them to participate in ICT mechanism and tools more expertly and skillfully.

Regarding the participation of respondents according to gender, table 1 shows that 49% were male respondents while 51% were female respondents. If considering the latter we can indicate that most of the respondents had equal access to ICTs.

Concerning the Education sphere we see that Table 1 shows that 9.8% of the participants did not acquire any type or form of education, while 23.50% mentioned that they went to primary school, 19.6% of the participants achieved secondary school education while 13.7% of the participants attained a type of technical education, 25.5% attained undergraduate education, and 8% had a master's degree. On that note, we can indicate that most of the participants reached one form of education or at least a primary school education. It can be argued that improving

educational background can foster the use of ICTs, however, the use of ICT does require another type of education and skills. On that note, in schools, they should have subjects regarding the basic use of ICTs.

Finally, we can observe that the majority of the respondents come from small-scale farming. That is essential to know since most of the Ecuadorian food farming comes from small-scale farmers.

In Table 2, male and female gender have access to radio and cell phones, however, the male gender has more access to television (45.1%), and computers (35.2%). These percentage figures show low access for both males and females similar to the results given regarding computers. However, there is appreciable access to television, radio, and computers. Moreover, seeing that there is high access to another ICT platform, computers/laptops can also spread equally to the agriculture areas.

The result in Table 3 and 4 revealed that females were the dominant gender concerning the low participation in ICTs. The latter can be portrayed for the following reasons:

Religious/Cultural barriers (Female), Gender prejudice (Female), Illiteracy (Female) and Access to internet (Female). Only in the cost of possessing and accessing ICTs the male gender was dominant. With the latter results, it can be argued that women have more constraints and limitations in gaining access to ICTs than their male counterparts.

Table 4 indicates that female respondents had less access to government projects and initiatives, in comparison to their male counterparts. The latter can be a tendency that can be seen in our previous literature review in which usually male counterparts usually do not share the knowledge gained through the visit of agricultural extension officers, or share knowledge seminars are given in times in which women are doing care work at home.

Finally, figure 5 and 6 are good guides which reflect that cell phones are the main device that most agriculture male and females use in their daily activities, and most importantly for their agriculture activities.

4.2 Interviews with Experts

This part of the paper is key since we have experts in the field of agriculture and gender. This paper has the perspective of the Vice-Minister of Agricultural Productive Development. This Viceministry is part of the Ministry of Agriculture and Livestock, and one of its main objectives is to foster the production of both small and medium scale male and female farmers. On that note, this Vice Ministry fosters and creates public policies and projects to accomplish the latter. Fostering agriculture innovation is also part of its objectives, hence it was imperative to interview this government authority.

In addition, this study will also contain the view of the most important international organization for food and agriculture, FAO and from

the NGO Rikolto. The expertise of these organizations will permit us to understand the efforts they are making to close the gender gaps in the ecuadorian agriculture area.

4.2.1 Eduardo Izaguirre – Vice-Minister of Agricultural Productive Development

Vice-minister Izaguirre mentioned two key points regarding the gender gap and ICTs in the agriculture sector. He pointed out the cultural embeddedness that exists in Ecuador, and the male stereotypes that it continues to prevail in the agriculture sector. However, to create equality among male and female farmers, they have implemented policies and projects to tackle the latter. Some emblematic ones are: *Super mujer Rural* and *Credito Especializado para mujeres Rurales*.

Moreover, he indicated that an agriculture census is needed, since, without data, the government has difficulties creating long-term projects. On that note, we can see that there is no disaggregated data regarding the access and use of ICTs in the agriculture sector.

*4.2.3 Agustin Zimmerman – **FAO Representative in Ecuador***

FAO is the most important International Organization that provides cooperation to Ecuador to improve nutrition, increase agricultural productivity, raise the standard of living of the rural population and contribute to the growth of the local and national economy. Moreover, FAO seeks to strengthen links and permanent dialogue between those who have the knowledge and those who need it. On that note, it was essential to the contribution of FAO Ecuador's office to this study.

The representative of FAO, Agustin Zimmerman, mentioned two key activities that FAO has helped Ecuador with regarding the gender gap in the agriculture sector. On that note, it was mentioned the organization helped through the project Super Mujer Rural and currently will assist the Ministry of Agriculture and Livestock to implement quantitative and qualitative data regarding the use of ICT platforms in the agriculture sector. However, the last one is still being analyzed.

It is important to mention that FAO agrees that in Ecuador there is a gender gap between female and male farmers. According to FAO, the latter is caused by cultural macho embeddedness. And that culture is seen more often in rural areas. As an example, it was mentioned that some male farmers do not want male extensionists to talk to their wives. Hence, most of the time key agriculture information can only be given to the male counterparts.

4.2.4 Carolina Salazar - Rikolto's Coordinator for Sustainable and Resilient Food Systems

It was key to have the insight of Rikolto, which is an NGO that works in Ecuador to foster its agriculture through gender and youth lenses.

Ms. Salazar also pointed out the cultural embeddedness that exists in the agriculture sector, and hence it is probably the main factor that widens the gender gap towards the use and access of ICTs. However, she also pointed out that overall male and female farmers do not receive any type of news regarding capacitation or any program that the government has implemented towards the use of ICTs. Moreover, in the programs, she has seen that the government (through the Ministry of Agriculture and Livestock) offers, most of the participants are male counterparts. Additionally, she believes there are not enough or sufficient gender specialists.

It can be argued that by not having specialists, then few activities and programs can be developed, hence the gender gaps in the agriculture sector will be hard to close.

Chapter 5. Discussion and Conclusion

It can be seen that both female and male farmers struggle with similar problems, nonetheless, it can be seen throughout this study that they affect the female farmer in a more extensive way. Additionally, the results of this research paper have disclosed that there is higher availability and accessibility of ICTs for cell phones followed by television and radio respectively. It can be argued that cell phones are most often used since nowadays they are more affordable and could be easily used by even illiterate farmers. Moreover, the use of cell phones increased due to COVID-19, which was also reflected in the interview with FAO.

Moreover, The findings and conclusion of this study report also revealed that women on the Coast of Ecuador have less access to Information and Communication Technologies (ICTs) than do their male counterparts.

Additionally, it seems that there is lack of diffusion for all the available programs that are currently being implemented by the government, as well as, the international organizations. Even though the representatives of the latter groups mentioned that they do have activities regarding gender and ICTs, the answer of the participants reflected the opposite.

There is also necessity in terms of elaborating bolder and stronger gender-sensitive policies regarding this matter. To do the following it is necessary and imperative to have public officials with a gender knowledge

background formation, and most importantly for authorities and decision making stakeholders to understand the necessity to foster equal access to male and female farmers.

It is imperative to indicate that the collected data only allows us to describe these differences and constraints, at a small scale level. However, this is a small step towards a deeper study, which can allow us to deeply understand how gender gaps in digital access vary across at a regional level.

Chapter 6. Recommendations

Taking the latter into account it is essential to formulate possible recommendations, to tackle this important issue. It is imperative to indicate that the possible recommendations need to have the participation of both the government, as well as, the private technology sector. Along these key actors, the assistance of International Organizations, NGOs and civil society is complementary to have robust answers and projects to tackle the current inequality in the agriculture sector.

Hence, the given recommendations are the following:

- Women should be included in creating policies and making decisions while the agriculture sector is developing. Local level is the most crucial.
- Empowering agriculture women. Empowerment has been viewed as a strategy to help people's socioeconomic situations improve so they can purchase some ICT devices.
- Create programs and plans that take gender equality into consideration. Adopting a gender empowerment strategy that does not marginalize women or place women's interests below those of males is vital.
- One major issue that experts brought up in various research was education. Giving girls and adult women equitable access to education and technological education is crucial. The latter is a result

of women being empowered and developed in order to have access to ICTs, particularly more engagement with programs for computer literacy.

- Government should work harder to implement liberalization and deregulation policies in the economy to include ICT infrastructure and robust framework so that both male and female farmers can afford the costs of ICT cell phones, computers, and other accessories.

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Tables and Figures

Table 1. Personal characteristics of respondents

Variable	Frequency	Percentage
Age		
25-45	32	62.7%
46-and above	19	37.3%
Total	51	100.0%
Sex		
Male	25	49.0%
Female	26	51.0%
Total	51	100.0%
Education Background		
No Formal Education	5	9.8%
Primary	12	23.5%
Secondary	10	19.6%
Technical	7	13.7%
Undergraduate	13	24.5%
Masters	4	8.0%
Total	51	100.0%
Hectares for Agricultural Activity		
Less than 1	6	11.8%
1-20	41	80.4%
20.01-100	3	5.9%
No hectares	1	2.0%
Total	51	100.0%
Electric Service		
Yes	49	96.1%
No	2	3.9%
Total	51	100.0%

*Primary Data Questionnaire

Table 2. Distribution of respondents according to access to ICTs

ICTs	Young Male	Adult Male	Young Female	Adult Female	Total Male%	Total Female%
Radio	16	5	7	14	41.2%	41.2%
Television	18	5	12	6	45.1%	35.2%
Computer	13	5	10	3	35.2%	25.5%
Cell phone	19	6	17	8	49.01%	49.01%

Table 3. Reasons for disparity in gaining access to ICTs.

Reasons	Male	Female
Religious/Cultural	2 (3.9%)	6 (11.7%)
High Cost	22 (43.2%)	20 (39.2%)
Gender	1 (1.9%)	13 (25.4%)
Illiteracy	5 (9.8%)	9 (17.6%)
Access to internet	9 (17.6%)	13 (25.4%)

Table 4. Have you had access to Government/NGOs/International Organizations Programs related ICTS and innovation

	Female	Male
Yes	2 (3.9%)	6 (11.8%)
No	24 (47.1%)	19 (37.2%)

Figure 1. What ICTs do you use for the following activities?

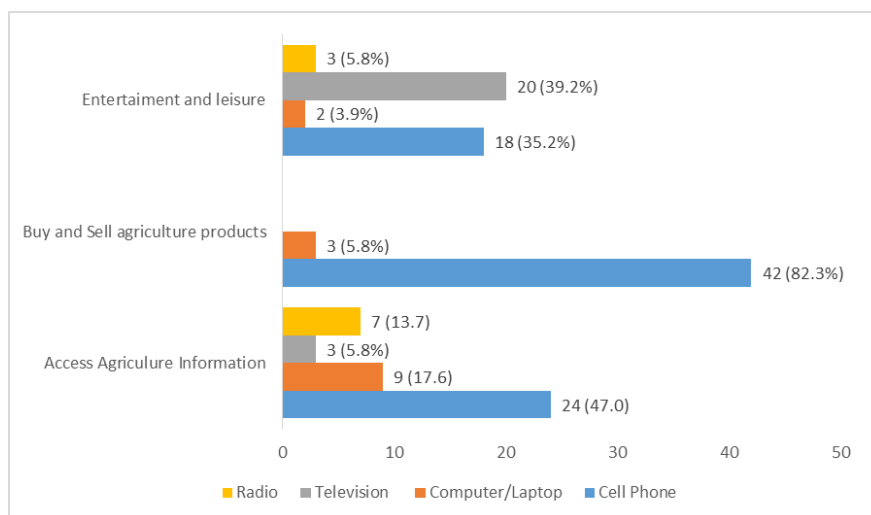
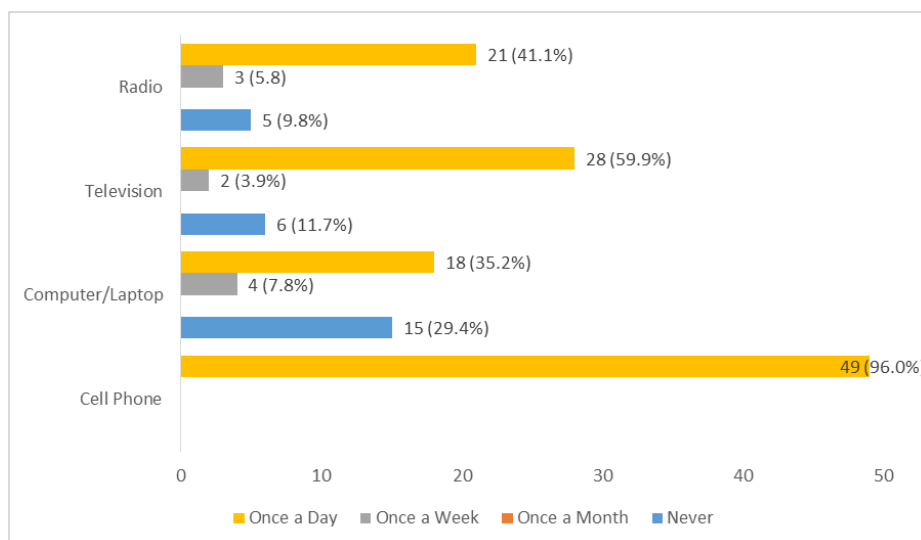


Figure 2. How often do you use the following devices?



Appendixes

Online Questionnaire

Name	<ul style="list-style-type: none"> - Male - Female
Age	
Indicate Province and City	
Marital Status	<ul style="list-style-type: none"> - Single - Married - Divorced - Separated - Widowed
Are you the head of your household	<ul style="list-style-type: none"> - Yes - No
What is the highest level of education you have achieved?	<ul style="list-style-type: none"> - No Formal Education - Primary - Secondary - Technical - Undergraduate - Masters
Hectares for Agricultural Activity	<ul style="list-style-type: none"> - Less than 1 - 1-20 - 20.01-100 - No hectares
Do you have access to electricity service	<ul style="list-style-type: none"> - Yes - No
Do you own one of the following ICTS devices	<ul style="list-style-type: none"> - Mobile Phone - Computer/Laptop - Television - Radio
How often do you use the following devices?	<ul style="list-style-type: none"> - At least once a day - Once a week

	<ul style="list-style-type: none"> - Once a month
What ICTs do you use for the following activities?	<ul style="list-style-type: none"> - Accessing to farming and agriculture information - Buying and selling products - Entertainment/Leisure
What do you think has been preventing you from using ICTs, or using it more regularly?	<ul style="list-style-type: none"> - Religious/Cultural Barrier - High cost of possessing an ICT device - Gender prejudice - Illiteracy - I have no internet at home
Have you had access to Government/NGOs/International Organizations Programs related ICTS and innovation	<ul style="list-style-type: none"> - Yes - No

Interview Questions for Experts

Date of the interview (dd/mm/yyyy)		
Name of Expert		
Name of Organization/Workplace	Current Position	
Time Started	Time Ended	
Zoom Link		

- a. Are there any differences between women and men in terms of access to and/or ownership of ICT tools (e.g., mobile phone, computer, radio)? What about usage?
- b. What trends have you seen? Why do you think there are these differences, if any?
- c. If there is a gender gap in ICT usage, what do you think could be done to improve it?
- d. What roles can different stakeholders play (e.g., government, civil society, the private sector)? Have you worked with them at all?
- e. Do you have current or planned programs and services to address the ICT and gender gap? If yes, can you tell me more about them?
- f. What results have you seen? What has worked well/less well so far? Why?
- g. What are your future plans for these programs?
- h. Has your organization done any research or collected any data on this topic? If so, what results have you seen so far?

Date of Interview	04/09/2022		
Name of Expert	Carolina Salazar Daza		
Name of Organization/Workplace	Rikolto Latin America	Current Position	Coordinator
Time Started	01:00 am	Time Ended	01:40 am
Zoom Link	https://snu-ac-kr.zoom.us/j/98795642079		

Are there any differences between women and men in terms of access to and/or ownership of ICT tools (e.g., mobile phone, computer, radio)? What about usage?

One of the barriers we have in Ecuador is internet coverage. Where do you usually have this coverage? It is in the urban area. Rurality does not have this same access, and even more so if you move away from the parish roads, the further you go, the less internet access you have.

The telephone companies are not covering, and the state telephone company (CNT) has lowered its quality and coverage.

As we can see, there is no coverage, and then when talking to the farmers due to this lack of coverage, the smartphone is of no use to you, unless you have a stable internet base, for example if you have a house with satellite internet .

To this must be added the issue of education. Already this one is very weak and low. Consequently, very few people have access to or are able to complete education. If we look at gender, women have fewer opportunities to finish school. I was just looking at some figures, and 20% of the rural population, in terms of women, have completed basic education. So we see that they do not have access to knowledge and the use of new technologies, since they barely know how to read and write. This is a failure and a debt of the State.

Besides, if we talk about women and access to technology in rural areas, we have care burdens on women. Currently, the phenomenon called "the feminization of the countryside" is taking place. Men are leaving the countryside as they are going to work in the cities as it is not enough. Therefore, the accumulation of work, and not only care but subsistence, belongs to women. It must be taken into account that in Ecuador, 60% that is consumed comes from family and peasant agriculture. That means that

they are the women who are behind all this work and are being made invisible. So, if we think about it and see, for example, this platform: IT for Change, this platform has a feminist vision, and has studies regarding access to technology.

What trends have you seen? Why do you think there are these differences, if any?

We can see that the State has debts in terms of education, literacy, digital literacy, access to smart technology and coverage. Basically this is like swimming against the current, therefore it is important to indicate that these are structural debts of the State, since they continue to amplify these inequalities and that they fall on women.

If there is a gender gap in ICT usage, what do you think could be done to improve it?

In our work in the territory, many times the farmers do not say that they do not know how to use digital devices since it is younger generations who do. So what can be done about this? They are proposals to make the countryside attractive again for the young population, since the young population is the one that has the most access to technology but not as a market opportunity, but rather to give people from the countryside agricultural training, from knowledge to training in technology but that they stay in the countryside but in a sustainable and economically sustainable way, since we could idealize that the countryside is the best but we must also be realistic, since people must generate income, and above all live a decent life in field. So there is work to be done, I think that work should begin with rural youth.

What roles can different stakeholders play (e.g., government, civil society, the private sector)? Have you worked with them at all?

We also at Rikolto have our focus on gender and youth. The work we do is capacity building and giving a realistic invitation and showing the field as an alternative to generate decent income. This is done through our coffee and cocoa program and sustainable food program.

This is a job that requires alliances, since it is not only a job that is done from an NGO, but you need an articulation between different actors. However, on a personal level, but not Rikolto's, it is to call on the State to think about the sustainability of processes and projects. Also in these activities they must take into account the gender approach, as well as access

to education, family planning, revaluation of the countryside, and that they be focused on the needs of the people.

Do you have current or planned programs and services to address the ICT and gender gap? If yes, can you tell me more about them?

The Sustainable Food program is a regional level program made up of 5 countries. In Honduras and Ecuador, youth agricultural entrepreneurship is being promoted but taking into consideration gender perspective, as well as, care work, since and as previously mentioned, the extensionist goes to the field and gives training from 8 to 11 in the morning, but usually At that time the women are preparing food. So at Rikolto we are generating a methodology so that our training has a gender focus so that it can be applied in the associations and communities that we are working with.

This methodology will be of great importance since I return to the example of the extension workers. They usually think that farmers are only men, but the reality is different.

What results have you seen? What has worked well/less well so far? Why?

The methodology of this program is positive, since, as I mentioned, it has a youth and gender approach. Additionally, this program is applied to a reality of its context.

What are your future plans for these programs?

This program is just starting.

Has your organization done any research or collected any data on this topic? If so, what results have you seen so far?

As the program is just beginning, we still do not have the results, however our goal is to have women in the programs, especially to promote and facilitate access to credit, since it is one of the difficulties that exists. We will have the data by the end of this year.

Date of Interview	06/09/2022		
Name of Expert	Eduardo Izaguirre		
Name of Organization/Workplace	Ministry of Agriculture and Livestock	Current Position	Vice-Minister
Time Started	10:00 pm	Time Ended	10:30 pm
Zoom Link	https://snu-ac-kr.zoom.us/j/96618766535		

Are there any differences between women and men in terms of access to and/or ownership of ICT tools (e.g., mobile phone, computer, radio)? What about usage?

Yes they do exist, we can see that the main affectation is education at the national level, being one of the paths that allows people to achieve human development and overcome poverty. We recently conducted a survey, which was focused to agricultural producers nationwide in September 2022, through the "Schools of Entrepreneurship Form", with the question: Do you use any technological device such as a cell phone, computer, and/or any another device? 47.5% of the male producers handled these electronic communication devices, while 42.4% of the female producers handled some electronic device.

In this sense, one of the pillars of the MAG is the Rural Interministerial Council, a tool to promote the work of the State portfolios based on the needs of rural areas, for their development in education, health, public works, social work.

What trends have you seen? Why do you think there are these differences, if any?

It is because of the role of rural women in the home, in the family agricultural production units, the care of the family itself, economic activities that support the home, domestic work, unpaid labor, the COVID-19 pandemic. All this caused important changes, especially in education, such as adapting to the virtual study modality. It has generated that women are in charge of their children's academic activities through access to electronic devices.

If there is a gender gap in ICT usage, what do you think could be done to improve it?

MAG seeks to give continuity to the training of rural women, on issues of digital maturity, digital marketing, financial education, tax responsibility, associative marketing, among others.

What roles can different stakeholders play (e.g., government, civil society, the private sector)? Have you worked with them at all?

It is important to continue working with the international organizations and civil society to approach this important issue. They have the capacity and experience that probably we sometimes lack. Hence, working together will improve the results of this issue.

Do you have current or planned programs and services to address the ICT and gender gap? If yes, can you tell me more about them?

Through the Undersecretary of Agricultural Innovation Networks, through the Directorate for the Transfer of Innovative Agricultural Knowledge, the "Rural Women's Training School, Certifications and Digital Transformation" program has been developed, aimed at women in the rural sector, through illiteracy training digital, gender equality, and access to certifications in BPAS, BPM and the Seal of Family and Peasant Agriculture.

What results have you seen? What has worked well/less well so far? Why?

We still have a long way to go, we see rural women more empowered with their talents. Within the framework of the implementation of the public policy of: "National Agricultural Strategy for Rural Women" - ENAMR, whose objective is to make visible the work of women in peasant family agriculture and their contribution to food sovereignty, equitable access is guaranteed to the means of production, public recognition of the role of women in the generation of food and in the economy, as well as generating conditions to overcome barriers and reduce gender gaps in the agricultural sector.

There are also territorial inter-institutional articulation tables, where various local actors come together and work on roadmaps for the development of processes and joint actions in favor of rural women. In this sense, and being one of the needs raised, priority will be given to working with the access and development of technologies for these spaces.

What are your future plans for these programs?

A training school for Rural Women will be implemented, where they will begin to talk about training and management of social networks for agricultural entrepreneurs, hoping that this will allow strengthening the capacities of women and men in terms of access to the market.

Has your organization done any research or collected any data on this topic? If so, what results have you seen so far?

The main objective of the survey carried out among agricultural producers at the national level, through the "Schools of Entrepreneurship Form", was to identify the needs of the agricultural sector in the field of training, knowledge generation, entrepreneurship and generation of added value as a source of family income, so 65% of the producers seek training in certification issues, 44.7% in Market Strategies: Marketing strategies, communication strategies, digital marketing, 44.4% in Financial Education issues: Credits, production costs, and 29% in legal advice: SRI, legal regulations, business and socio-organizational organizational structure.

Date of Interview	29/09/2022		
Name of Expert	Agustin Zimmerman		
Name of Organization/Workplace	Food and Agriculture Organization	Current Position	Country Representative
Time Started	05:00 am	Time Ended	05:30 am
Zoom Link	https://snu-ac-kr.zoom.us/j/94025055590		

Are there any differences between women and men in terms of access to and/or ownership of ICT tools (e.g., mobile phone, computer, radio, Television)? What about usage?

In terms of Radio and Television it is a broader use, as you know these media are the most used but they do not allow interaction, therefore they are only receivers that one can capture but not interact. In this regard, I believe that there are equal conditions for its use between men and women, since it is in the home and is available to both sexes.

As for the computer, it is the one with the least access due to its cost, followed by the cell phone. In terms of access, there is a difference, since in the houses there is only one device. It is important to note that this device grew during the pandemic as many children were forced to take classes online. However, this device is more tied to the man, since if the man leaves the house, his home is left without that device for his use. This is seen more at the rural level, at the urban level this will possibly be different.

What trends have you seen? Why do you think there are these differences, if any?

The first gap we can see is that the device is useless without internet access. Sometimes there are places where they have internet access, but not access to a cell phone, or there are times that if you have a cell phone but there is no access to internet services. In the rural sector you must be very lucky to have both.

Then we have the percentage of school literacy, which is differentiated between men and women. In the rural sector, women have less access to literacy, therefore not many know how to read or write.

Then we have another gap, which is digital literacy, and that is the biggest gap that we have seen, even in the projects that we have implemented lately. We see that several people in the rural sector have the device and access,

however it is difficult for them to enter a platform since they do not have an email account. Imagine, despite having the largest investment, since they have the telephone and the internet, they cannot access other platforms. That has been the biggest gap that we have found as FAO regarding this issue.

If there is a gender gap in ICT usage, what do you think could be done to improve it?

We have worked with ICTs in the field, and we have seen a generation gap. ICTs are within the reach of the youngest populations, and in the agricultural sector we have an aging population that is bordering on 56 years of age and they are not very interested in this subject, and the most they will access is WhatsApp.

Then comes the gender gap, in this gap you already have several connotations, first and as we have talked about access, if we overcome this gap, then we have the social norms. Usually the current technologies give you access to an account, interact with more people, have virtual friends, etc. However, due to these social norms, men do not see it well that their partners have this access since they become jealous. As an example I can tell you that there are times not even the same extensionist writes to them.

At the rural level we also have access to sources of work, access to sources of work allows you to have purchasing power, usually the man has access to work and earns periodically, therefore he can more easily buy a device . While the woman has access to work but to a more reproductive or community one that is often unpaid, and that also makes it difficult to buy a device.

Another important aspect was the damage caused by Covid-19. We did an information survey to see the impacts of the pandemic in the rural sector and the survey reflects that 81% of the sector was economically affected. This means that many abandoned their insurance, divested themselves of their phone, internet usage, etc.

What roles can different stakeholders play (e.g., government, civil society, the private sector)? Have you worked with them at all?

As FAO we have promoted the encounter, through spaces for dialogue with representatives of organizations from the public and private sectors. Especially with developers of digital platforms.

In these meetings, the Government stated that it wishes to reduce the gaps in internet service. In the future, access to the internet will be a right for all citizens since it is the connection to the whole world. The private sector also has a task, which is to teach the population to use these platforms. For example, there is still mistrust in putting your data on different platforms or applications. This happens in the urban sector, in the rural sector people do not trust these devices very much.

Do you have current or planned programs and services to address the ICT and gender gap? If yes, can you tell me more about them?

There are several programs within FAO that focus on digital sales, efforts have been made to put a digital offer on marketing issues, especially cocoa ventures and in the Amazon. Likewise, we are currently developing a platform called Productive Agricultural Management (AGROPAGRO). This is an important initiative since we will impress upon people the importance of responsible consumption. I am commenting on this topic because when we carried out this program we identified that there is a lack of specific data on gender issues. ICT data is available but not broken down by gender.

What results have you seen? What has worked well/less well so far? Why?

The important thing about this program is digital transformation.

What are your future plans for these programs?

AGROPAGRO will remain in the hands of the State, through the Ministry of Agriculture and Livestock. Therefore it is imperative that they continue with these innovative processes.

Has your organization done any research or collected any data on this topic? If so, what results have you seen so far?

Currently we do not have disaggregated data regarding gender and ICTs, but in the future we are sure that we will do it since it is a current need. It is necessary to have gender statistics, and therefore the Super Rural Women Strategy is currently being implemented, but there is no monitoring for this initiative. In this virtue, FAO will support monitoring and that they have key indicators, these indicators will serve to map the gender issue in the agricultural sector and see how the behaviors identified in the social norms

and behavior that we want to overcome in the long term are being overcome. We will have the first results at the beginning of 2023.

Fecha de la entrevista	04/09/2022		
Nombre del Experto	Carolina Salazar Daza		
Nombre del trabajo/Organización	Rikolto Latin America	Rol del Trabajo	Coordinator
Tiempo de inicio	01:00 am	Tiempo de finalización	01:40 am
Link de Zoom	https://snu-ac-kr.zoom.us/j/98795642079		

¿Existen diferencias entre mujeres y hombres en términos de acceso y/o propiedad de herramientas TICs (por ejemplo, teléfono móvil, computadora, radio)? ¿Qué pasa con el uso de estas herramientas?

Una de las barreras que tenemos en Ecuador es la cobertura de internet. Donde tienes usualmente esta cobertura? Es en la zona urbana. La ruralidad no tiene este mismo acceso, y aún más si es que te alejas de las carreteras parroquiales, mientras más te adentras, menos acceso a internet tienes.

Las telefónicas no están cubriendo, y la telefónica estatal (CNT) ha bajado su calidad y cobertura.

Como podemos ver, no hay cobertura, y luego cuando conversar con las y los agricultores debido a esta falta de cobertura, el teléfono inteligente no te sirve, al menos que tengas una base de internet estable, por ejemplo si tiene una casa con internet satelital.

A esto hay que sumar el tema de educación. Ya este el mismo es muy débil y bajo. Por lo consiguiente, muy pocas personas tienen acceso o pueden terminar la educación. Si vemos en género, las mujeres tienen menos oportunidades para terminar la escuela. Justo estaba viendo unas cifras, y 20% de la población rural, en cuanto a mujeres, han terminado la educación básica. Entonces vemos que no tiene acceso al conocimiento y al uso de las nuevas tecnologías, ya que apenas saben leer y escribir. Esto es una falla y una deuda del Estado.

Aparte, si hablamos de las mujeres y el acceso a la tecnología en la ruralidad, tenemos las cargas de cuidados sobre las mujeres. Actualmente se está dando el fenómeno que se llama, “la feminización del campo”. Los hombres están abandonando el campo ya que están yendo a trabajar a las ciudades, ya que no es suficiente. Por ende la acumulación del trabajo, y no solamente los cuidados sino de la subsistencia es de las mujeres. Hay que tomar en cuenta que en el Ecuador, el 60% que se consume viene de la agricultura familiar y campesina. Eso quiere decir que son las mujeres que están detrás de todo este trabajo y están siendo invisibilizadas. Entonces, si

nos ponemos a pensar y vemos, por ejemplo esta plataforma: IT for Change, esta plataforma tiene una visión feminista, y tiene estudios referente al acceso de tecnología.

¿Qué tendencias ha visto? ¿Por qué cree que existen estas diferencias, si las hay?

Podemos ver que el Estado tiene deudas en temas de educación, alfabetización, la alfabetización digital, el acceso a tecnología inteligente y la cobertura. Básicamente esto es como nadar contracorriente, por ende si es importante indicar que estas son deudas estructurales del Estado, ya que siguen amplificando estas desigualdades y que recaen en las mujeres.

Si existe una brecha de género en el uso de las TICs, ¿qué cree que se podría hacer para mejorarla?

En nuestro trabajo en territorio muchas veces las agricultoras no dicen que no saben cómo utilizar los dispositivos digitales ya que son generaciones más jóvenes las que saben. Por ende, que se puede hacer frente a esto? Son propuestas de volver a hacer atractivo al campo para la población joven, ya que la población joven es la que tiene más acceso a la tecnología pero no como una oportunidad marquetara, sino que den a las personas del campo formación agrícola, desde saberes hasta formación en tecnología pero que se queden en el campo pero de una manera sostenible y económicamente sostenible, ya que podríamos idealizar que el campo es lo máximo pero también debemos ser realistas, ya que la gente debe generar ingresos, y sobre todo vivir una vida digna en el campo. Entonces ahí hay trabajo por hacer, pienso que se debe comenzar el trabajo con las juventudes rurales.

¿Que rol pueden desempeñar los actores/partes interesadas para solventar esta temática (por ejemplo, el gobierno, la sociedad civil, el sector privado)? ¿Han trabajado con ellos?

Nosotros también desde Rikolto tenemos nuestro enfoque en género y juventudes. El trabajo que hacemos es un fortalecimiento de capacidades y dar una invitación realista y mostrar el campo como una alternativa para generar ingresos dignos. Esto se hace a través de nuestro programa de café y cacao y el programa de alimentos sostenibles.

Este es un trabajo que se requiere de alianzas, ya que no es únicamente un trabajo que se lo hace desde una ONG, sino que necesitas una articulación entre distintos actores. Sin embargo, a nivel personal, más no de Rikolto, es en realizar un llamado al Estado para que piensen en la sostenibilidad de los procesos y proyectos. También en dichas actividades deben tener en cuenta

el enfoque de género, al igual que acceso a la educación, planificación familiar, revalorización del campo, y que sean enfocados en las necesidades de la gente.

¿Tiene programas y servicios actuales o planificados para abordar las TICs y la brecha de género? En caso afirmativo, ¿puede contarme más sobre ellos?

El programa de Alimentos Sostenibles es un programa a nivel regional compuesta por 5 países. En Honduras y Ecuador se está impulsando el emprendimiento juvenil agropecuario but taking into consideration gender perspective, as well as, care work, since and as previously mentioned, the extensionist va al campo y da la capacitación de 8 a 11 de la mañana, pero usualmente a esa hora las mujeres están preparando la comida. Entonces desde Rikolto nosotros estamos generando una metodología para que nuestras capacitaciones tengan un enfoque de género para que la misma pueda ser aplicada en las asociaciones y comunidades que nosotros estamos trabajando.

Esta metodología será de suma importancia ya que vuelvo al ejemplo de los extensionistas. Usualmente ellos piensan que los agricultores son solamente hombres, pero la realidad es distinta.

¿Qué resultados ha visto? ¿Qué ha funcionado hasta ahora (Lo positivo y negativo)? ¿Por qué?

La metodología de este programa es positiva, ya que como te mencione tiene el enfoque de juventudes y de género. Adicionalmente, este programa es aplicado a una realidad de su contexto

¿Cual es el futuro para estos planes y programas?

Este programa está recién arrancando.

¿Su organización ha realizado alguna investigación o ha recopilado datos sobre este tema? Si es así, ¿qué resultados ha visto hasta ahora?

Como el programa recién inicia todavía no tenemos los resultados, sin embargo nuestro objetivo es que tengamos mujeres en los programas, sobre todo para fomentar y facilitar el acceso al crédito, ya que es una de las dificultades que existe. Los datos los tendremos a finales de este año.

Fecha de la entrevista	06/09/2022		
Nombre del Experto	Eduardo Izaguirre		
Nombre de su trabajo u organización	Ministry of Agriculture and Livestock	Rol del trabajo	Vice-Minister
Tiempo de inicio	10:00 pm	Tiempo de finalización	10:30 pm
Link de Zoom	https://snu-ac-kr.zoom.us/j/96618766535		

¿Existen diferencias entre mujeres y hombres en términos de acceso y/o propiedad de las herramientas TICS (teléfono móvil, computadora) que pasa con el uso de estas herramientas?

Si las hay*, podemos visualizar que la principal afectación es la educación a nivel nacional, siendo uno de los caminos que permite a las personas alcanzar el desarrollo humano y superar la pobreza. En este sentido, uno de los pilares del MAG, es el consejo Interministerial Rural, herramienta para impulsar el trabajo de las carteras de Estado en función de las necesidades de la ruralidad, para su desarrollo en educación, salud, obra pública, trabajo social.

**Resultados de: Encuesta realizada a los productores agropecuarios a nivel nacional en septiembre de 2022, a través del “Formulario Escuelas de Emprendimiento”, con la pregunt: ¿Maneja algún dispositivo tecnológico como teléfono celular, computadora, y/o algún otro dispositivo? 47.5 % de los productores hombres manejaban estos dispositivos electrónicos de comunicación, mientras que 42.4 % de las mujeres productoras manejan algún dispositivo electrónico.*

¿ Que tendencias ha visto? Porque hay estas diferencias

Es por la función de la mujer rural en el hogar, en las unidades productivas agropecuarias familiares, el cuidado de la familia mismo, actividades económicas que sustenten el hogar, trabajo doméstico, mano de obra no remunerada, la pandemia del COVID-19. Todo esto provocó cambios importantes, especialmente en la educación, como el adaptarse a la modalidad de estudio virtual. Ha generado que las mujeres sean las encargadas de las actividades académicas de sus hijos mediante el acceso a dispositivos electrónicos.

Si existe una brecha de género en el uso de las TICs, ¿qué cree que se podría hacer para mejorarla?

Se implementará una escuela de formación para Mujeres Rurales, donde se empezará a hablar de formación y manejo de redes sociales para emprendedoras/es agropecuarios, esperando que esto permita fortalecer las capacidades de mujeres y hombres en cuanto al acceso al mercado.

¿Que rol pueden desempeñar los actores/partes interesadas para solventar esta temática (por ejemplo, el gobierno, la sociedad civil, el sector privado)? ¿Han trabajado con ellos?

Es importante seguir trabajando con los organismos internacionales y la sociedad civil para abordar este importante tema. Tienen la capacidad y la experiencia que probablemente a veces nos falta. Por lo tanto, trabajar juntos mejorará los resultados de este número.

¿Tiene programas y servicios actuales o planificados para abordar las Tics y la brecha de género?

Mediante la Subsecretaria de Redes de Innovación Agropecuaria, a través de la Dirección de Transferencia de Conocimiento Innovativo Agropecuario, se ha desarrollado el programa “Escuela de Capacitación Mujer Rural, Certificaciones y Transformación Digital”, dirigido a mujeres del sector rural, mediante capacitaciones de analfabetismos digital, equidad de género, y acceso a las certificaciones en BPA, BPM y Sello de la Agricultura Familiar y campesina.

¿Qué resultados ha visto? ¿Qué ha funcionado hasta ahora (Lo positivo y negativo)? ¿Por qué?

Nos falta mucho avanzar, vemos a la mujer rural mas empoderada con sus talentos. En el marco de la implementación de la política pública de: “Estrategia Nacional Agropecuaria para Mujeres Rurales” – ENAMR, cuyo objetivo es visibilizar el trabajo de la mujer en la agricultura familiar campesina y su aporte a la soberanía alimentaria, se garantiza el acceso equitativo a los medios de producción, el reconocimiento público del rol de las mujeres en la generación de alimentos y en la economía, así como generen condiciones para superar barreras y disminuir las brechas de género en el sector agropecuario.

También hay mesas de articulación interinstitucional territoriales, donde confluyen varios actores locales y se trabajan hojas de ruta para desarrollo

de procesos y acciones conjuntas a favor de las mujeres rurales. En ese sentido y siendo una de las necesidades planteadas, se priorizará el trabajo con el acceso y desarrollo de tecnologías para estos espacios.

¿Cuál es el futuro para estos proyectos y planes?

El MAG, busca dar continuidad a las capacitaciones de Mujer rural, en temas de madures digital, marketing digital, educación financiera, responsabilidad tributaria, comercialización asociativa, entre otros.

¿Su organización ha realizado alguna investigación o ha recopilado datos sobre este tema?

La encuesta realizada hacia los productores agropecuarios a nivel nacional, a través del “Formulario Escuelas de Emprendimiento” tuvo como principal objetivo identificar las necesidades que presenta el sector agropecuario en el ámbito de capacitación, generación de conocimiento, emprendimientos y generación de valor agregado como fuente de ingreso familiar, es así que el 65% de los productores buscan capacitarse en temas de certificaciones, el 44.7 % en Estrategias de mercado: Estrategias de marketing, estrategias de comunicación, marketing digital, el 44.4 % en temas de Educación financiera: Créditos, costos de producción, y el 29% en Asesoría legal: SRI, normativa legal, estructura organizativa empresarial y socio-organizativa.

Fecha de la entrevista	29/09/2022		
Nombre del Experto	Agustin Zimmerman		
Nombre de su trabajo u organización	Food and Agriculture Organization	Rol del trabajo	Country Representative
Tiempo de inicio	05:00 am	Tiempo de finalización	05:30 am
Link de Zoom	https://snu-ac-kr.zoom.us/j/94025055590		

¿Existen diferencias entre mujeres y hombres en términos de acceso y/o propiedad de herramientas TICs (por ejemplo, teléfono móvil, computadora, radio)? ¿Qué pasa con el uso de estas herramientas?

En terminos de Radio y Television es un uso mas ampliado, como tu sabes estos medios son los mas utilizados pero no permiten interaccion, por ende son solo receptores que uno puede captar mas no interactuar. Al respecto, creo que hay igual condiciones de su uso entre hombre y mujeres, ya que esta en el hogar y esta disponible para ambos sexos.

En cuanto a la computadora, es el de menos acceso por su costo, y despues le sigue el celular. En términos de acceso, si existe diferencia, ya que en las casas solo existe un solo dispositivo. Es importante indicar que este dispositivo crecio durante la pandemia ya que muchos niños fueron forzados a tomar clases en online. Sin embargo, este dispositivo esta mas ligado al hombre, ya que si el hombre sale de casa, su hogar se queda sin ese dispositivo para su uso. Este particular se ve mas a nivel rural, a nivel urbano esto posiblemente será diferente.

¿Qué tendencias ha visto? ¿Por qué cree que existen estas diferencias, si las hay?

La primera brecha que podemos observar es que el dispositivo no sirve sin el acceso a internet. A veces existe lugares donde tienen acceso a internet, mas no acceso a un celular, o hay veces que si tienes el celular mas no hay acceso a servicios de internet. En el sector rural debes ser muy afortunado para tener ambas cosas.

Despues tenemos el porcentaje de alfabetización escolar, el cual es diferenciado entre hombres y mujeres. En el sector rural las mujeres tiene menos acceso a la alfabetización, por ende no muchas saben leer ni escribir.

Luego tenemos otra brecha, la cual es alfabetizacion digital, y esa es la mayor brecha que hemos evidenciado, inclusive en los proyectos que hemos

implementado ultimamente. Vemos que varias personas en el sector rural tiene el dispositivo y el acceso, sin embargo se les dificulta entrar en una plataforma ya que no tienen cuenta de correo electrónico. Imaginate, a pesar de tener la mayor inversión, ya que tiene el teléfono y el internet, no pueden acceder a otras plataformas. Esa a sido la mayor brecha que hemos encontrado como FAO referente a este tema.

Si existe una brecha de género en el uso de las TICs, ¿qué cree que se podría hacer para mejorarla?

Nosotros hemos trabajado con TICs en campo, y hemos visto una brecha generacional. Las TICs están al alcance de las poblaciones más jóvenes, y en el sector agropecuario tenemos una población envejecida que está bordeando los 56 años de edad y ellos no les interesa mucho este tema, y lo máximo que van a acceder es a whatsapp.

Luego viene la brecha de género, en esta brecha ya tienes varias connotaciones, primero y como hemos hablado el acceso, si superamos esta brecha, después tenemos las normas sociales. Usualmente las actuales tecnologías te dan acceso a cuenta, interactuar con más gente, tener amigos virtuales, etc. sin embargo debido a estas normas sociales los hombres no ven bien que sus parejas tengan este acceso ya que se ponen celosos. Como ejemplo te puedo decir que hay veces ni el mismo extensionista les escribe.

A nivel rural también tenemos el acceso a las fuentes de trabajo, el acceso a las fuentes de trabajo te permite tener una capacidad de compra, usualmente el hombre tiene acceso al trabajo y gana de forma periódica, por ende puede comprar con más facilidad un dispositivo. Mientras la mujer tiene acceso al trabajo pero a uno más reproductivo o comunitario que muchas veces no es remunerado, y eso también dificulta la compra de un dispositivo.

Otro aspecto importante fue el daño causado por el Covid-19. Nosotros hicimos un levantamiento de información para ver los impactos de la pandemia en el sector rural y la encuesta refleja que el 81% del sector fue afectado económicamente. Esto significa que muchos abandonaron su seguro, se despojaron de su teléfono, y del uso del internet, etc.

¿Que rol pueden desempeñar los actores/partes interesadas para solventar esta temática (por ejemplo, el gobierno, la sociedad civil, el sector privado)? ¿Han trabajado con ellos?

Como FAO hemos fomentado el encuentro, a través de espacios de diálogo con representantes de organizaciones del sector público y privado. En especial con desarrolladores de plataformas digitales.

En estas reuniones el Gobierno manifestó que desea reducir las brechas del servicio del internet. En un futuro el acceso al internet será un derecho para todos los ciudadanos ya que es la conexión a todo el mundo. El sector privado también tiene una tarea, la cual es el enseñar a la población a utilizar estas plataformas. Por ejemplo, todavía existe la desconfianza en poner tus datos en las diferentes plataformas o aplicaciones. Esto ocurre en el sector urbano, en el sector rural la gente no confía mucho en estos dispositivos.

¿Tiene programas y servicios actuales o planificados para abordar las TICs y la brecha de género? En caso afirmativo, ¿puede contarme más sobre ellos?

Hay varios programas dentro de FAO que se enfocan en ventas digitales, se han realizado esfuerzos para poner una oferta digital en temas de comercialización en especial a emprendimientos de cacao y en la amazonía. Asimismo, actualmente estamos desarrollando una plataforma que se llama Gestion Productiva del Agro (AGROPAGRO). Esta es una iniciativa importante ya que colocaremos en la gente la importancia del consumo responsable. Te comento este tema ya que al realizar este programa identificamos que faltan datos específicos en temas de género. Se tienen datos de TICs pero no desglosados a nivel de género.

¿Qué resultados ha visto? ¿Qué ha funcionado hasta ahora (Lo positivo y negativo)? ¿Por qué?

Lo importante de este programa es la transformación digital.

¿Cual es el futuro para estos planes y programas?

El AGROPAGRO quedará en manos del Estado, a través del Ministerio de Agricultura y Ganadería. Por lo consiguiente es imperativo que sigan con estos procesos innovativos.

¿Su organización ha realizado alguna investigación o ha recopilado datos sobre este tema?

Actualmente no tenemos datos desagregados referente al genero y la TICs, pero en un futuro estamos seguros que lo vamos a realizar ya que es una necesidad actual. Es necesario tener estadísticas de genero, y por ende actualmente se esta implementando la Estrategia de Super Mujer Rural pero no existe un monitoreo para esta iniciativa. En tal virtud, FAO apoyará con el monitoreo y que tengan indicadores clave, estos indicadores servirán para mapear el tema de genero en el sector agropecuario y ver como se van superando las conductas identificadas en las normas sociales y comportamiento que deseamos superar a largo plazo. Los primeros resultados los tendremos a inicios del 2023.