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OPPORTUNITIES TO EMPOWER WOMEN WITH ENHANCED ACCESS TO CLIMATE INFORMATION SERVICES FOR TRANSFORMATIVE ADAPTATION ACTIONS IN VIET NAM'S AGRICULTURAL SECTORS

TECHNICAL BRIEF

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FOREWORD

This brief was designed to inform policymakers in the review and update of Viet Nam's Nationally Determined Contributions (NDC). It aims to highlight how gender-sensitive climate policies can foster adaptation, as well as to raise awareness on the role of Vietnamese women in agricultural adaptation, review gaps and needs, and propose recommendations to adjust policies.

The development of this brief was led by UNDP and received valuable inputs from the NDC Gender Working Group.¹

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¹ The UN-CCWG Gender Working group comprises member of Vietnamese and international NGOs as well as UN Agencies working in the field of climate change adaptation and mitigation and Disaster Risk Reduction (DRR). It was created to share best practices, coordinate support and strengthen gender analysis in the NDC technical reports and draft NDC consultations.



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KEY MESSAGES

1. **The impacts of climate change are not gender-neutral.** Women farmers rely heavily on climate-sensitive natural resources for their livelihoods. Further, female-headed households have less adaptive capacity to cope with climate change, as they often lag behind men in terms of access to information services, technologies and credit. In addition, women farmers are often more vulnerable than men because of existing social norms and inherent inequalities. For instance, at the household level, women often have less decision-making power regarding the choice of crops, technologies or commercial development.
2. Yet, despite these limitations and the burden of unpaid work, **Vietnamese women play a substantial role in climate change adaptation** due to their involvement in the agriculture, forestry, and disaster risk reduction sectors. Women's contributions are essential in meeting adaptation targets, as they possess extensive knowledge and capacities, and play key roles within their communities. Consequently, women should not be seen as victims; rather they should be considered crucial actors of change.
3. **Enormous disparities exist among women farmers** depending on their location, ethnicity, level of education, cultural and religious practices, etc. To effectively address these differing characteristics that shape women's vulnerabilities to climate change (inequalities) in the updated NDC policy document, more research and data are required (see indicators Page 1). The current lack of sex-disaggregated data hampers the understanding of a changing agricultural landscape, which employs more women and needs to cope with climate change and external factors (e.g. competition, migration, etc.).
4. **Women and men exhibit differences in terms of their responses to agricultural related climate change**, their access to and use of climate information services, and their vulnerabilities and capacities to adapt to a changing climate. The design of climate information services that considers the differences between men and women in terms of perception, usage and access is fundamental to the successful adoption and uptake of adaptation strategies.
5. **By striving for gender equality in agricultural adaptation, the NAP process and the NDCs** could address existing structural barriers (institutional, financial, access to information) preventing women from reaching their full potential in terms of climate change adaptation. **Adopting a gender lens in climate policy will bring a myriad of co-benefits.** It will contribute to women's economic empowerment and political participation, increase agricultural productivity, and enhance community responses to disasters. Furthermore, experts have reviewed the current agricultural adaptation and DRR activities in the draft Vietnamese NDCs, which have received a high score in achieving SDG 5: Gender Equality.
6. This brief recommends **developing inclusive Climate Information Services** as a strategic intervention that can effectively reduce the gender inequality gaps in Viet Nam, among different NDC measures. This would help enhance women's adaptive capacities and contribute to the achievement of Viet Nam's socio-economic development plans.



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RECOMMENDATIONS

For Policymakers

- **Address gender-differentiated needs, roles, and priorities** in adaptation processes of agricultural sectors through gender mainstreaming during the review and update of Viet Nam's Nationally Determined Contributions (NDC). This will ensure that women and men benefit equally from proposed adaptation plans.
- **Ensure that women's representatives are consulted** in the formulation of agriculture adaptation policies and projects. A gender responsive regulatory and legal framework (e.g. considering land rights) can help to create an enabling environment in this regard.
- **Increase the availability and accessibility of Climate Information Services (CIS)** that benefit women farmers through gender-sensitive technologies, use of their preferred communication channels (e.g. Women's Union, markets), and targeted information to enhance their adaptive capacities. Equal access to information services is a key step toward the pursuit of an inclusive society.
- **Develop a package of complimentary measures**, including support to women farmer groups through training and access to credit and climate information services. In this respect, there is space for fostering coordination between ministries and sub-sectors, while at the same time reducing costs and increasing efficiency/uptake of agriculture adaptation strategies by society more broadly.
- **Allocate a specific budget** from MARD to mainstream gender-responsive approaches in agricultural adaptation. The Ministry of Agriculture and Rural Development could encourage and monitor women's participation in all climate change adaptation activities, including in mass organisations such as Farmers' Unions and Women's Unions.

For the NDC Gender Working Group

- **Identify and disseminate success stories** showcasing the role of women in climate change adaptation, with clear recommendations to inform policymakers. Where possible, depending on the availability of information, an intersectional approach should be taken to examine the variation of women's situations depending on factors including their age, socioeconomic and ethnic background, and location.
Economic opportunities for women, leveraged through access to electricity and lighting should be embedded into both national gender equality and climate change strategies, plans and policies.
- **Support initiatives and projects to collect sex-disaggregated data** that reflects and captures factors that enhance climate change resilience among women farmers. Information is needed to better understand what will trigger women farmers' capacity to manage risks, adapt to climate change, and cope with extreme weather events. This includes designing national baseline studies that include quantitative and qualitative indicators which reflect access to and ownership of resources among households.

INDICATORS

This brief suggests using the following indicators to measure progress toward mainstreaming gender in agricultural adaptation measures of Viet Nam's revised Nationally Determined Contributions (NDC):

Proposed key gender-sensitive indicators	Responsibility	Source	Frequency
Gender Marker ² : Energy policies should include gender equality as part of their objectives	MOIT	<ul style="list-style-type: none"> New data, should be part of MOIT Plan/PDP8 to implement NDC and PIPA 	Annually
# of local Women's Union groups and MFI who have received a training on RE technologies, district level	Women's Union	<ul style="list-style-type: none"> PIPA MOIT M&E system for national / target programmes on RE 	Annually
# of women and # of men who holds leadership positions in the RE sector	MOIT & GSO	<ul style="list-style-type: none"> National Gender Development Statistical Indicators Circular No. 1/2019/TT-BKHDT (0301) 	Every 2 years
# of women and # of men who work in the RE sector	MOIT & GSO	<ul style="list-style-type: none"> New data, should be part of MOIT Plan/PDP8 to implement NDC and PIPA 	Every 2 years
# of off-grid households who have access to RE technologies # of female-headed off-grid household who have access to RE technologies	MOIT and Women Union 1 million solar rooftops initiative	<ul style="list-style-type: none"> New data, should be part of MOIT Plan/PDP8 to implement NDC and PIPA 	Annually
# of women headed and # of men headed business who have installed a solar rooftop	1 million solar rooftops initiative	<ul style="list-style-type: none"> New data, should be part of MOIT Plan/PDP8 to implement NDC and PIPA 	Annually

Other Indicators (optional)

1. # of women headed business who have aligned their business plan considering their environmental footprints
2. # of courses on Renewable Energy Technologies (RET)
3. # of women students and # men students who are studying RE

² The Gender Marker measures how much a project invests in gender equality and women's empowerment. Select one for each output: GEN3 (Gender equality as a principle objective); GEN2 (Gender equality as a significant objective); GEN1 (Limited contribution to gender equality); GEN0 (No contribution to gender quality)

I. BACKGROUND & RATIONALE

- 1. 65 percent of the Vietnamese population lives in rural areas, with 35.4 percent of the Vietnamese population reliant on agriculture, fisheries³, and/or forestry as their primary source of income (GSO, 2019).**

Smallholders who own less than 0.5 hectares of land form the bulk (69%) of the agricultural production in Viet Nam. Although 64 percent of women in rural areas are working in the agricultural sector, only 14 percent of agricultural landholders are women (UNDP, 2011; CIAT, 2017). In total, the country is home to over 10 million farmer households (Nghia, 2017).

- 2. Viet Nam's coastal region is vulnerable to the combined effects of sea level rise and land subsidence.**

The coastal area suitable for agriculture is shrinking, especially in the provinces around the Mekong Delta, and farmers are already forced to adopt new, climate resilient practices. Average annual temperature has increased by 0.5oC over the past fifty years. Changes in temperature and precipitation are highly variable depending on the location – for example, precipitation has increased in the south and decreased in the north (iNDC, 2015). The frequency and severity of extreme weather events are also on the rise (iNDC, 2015).

- 3. Achieving gender equality is an integral component of the international commitments adopted by Viet Nam.**

Particularly, the achievement of the Sustainable Development Goals (SDGs) and the Paris Agreement, which includes the submission of Nationally Determined Contributions (NDC) and the National Adaptation Planning (NAP) process. These overarching frameworks will guide Viet Nam's strategies in responding to climate change. They include a range of requirements, such as the strengthening of national capacities, and the need to develop transparent monitoring and evaluation platforms. These efforts offer an opportunity for the country to mainstream and advance gender equality while taking climate action in the agricultural sectors.

- 4. Gender roles and dynamics vary across different contexts and will determine a specific set of challenges that women and men may face.**

Adopting a gender lens in climate change policy instruments is fundamental to help address unbalanced relationships among genders in households and within communities. Performing a gendered analysis will also allow policymakers to better understand the gender differentiated impacts of climate change within the most vulnerable agricultural subsectors, and design action plans that promote gender equality and women's economic empowerment.

³ Fisheries are generally understood as capture fisheries but may also refer to aquaculture.



60 percent of women are
unaware of climate change,
compared to **36 percent** of men.

II. GENDER INEQUALITIES

Numerous efforts have been made by the Government of Viet Nam (GoV) to reduce gender inequalities.

These include the adoption of the Law on Gender Equality in 2006, the National Strategy on Gender Equality 2016-2020, and the gender-responsive revision of the Land Tenure Law (2003) which sought to enforce property rights. Access to property rights for women is important for ensuring women's access to credit, as collateral is required by financial institutions.

However, gender inequalities remain in Viet Nam.

For instance, women are over-represented in the informal sector, receiving lower salaries than their male counterparts (approximately 80 percent). Women have less access and control over natural resources than men, and do not have an equal role in decision-making (UNDP, 2011). Women bear responsibility for most household chores, which places a double burden on women who are responsible for both income generation and domestic activities (UNDP, 2011).

Although the participation of women in Vietnam's National Assembly (24 percent) is quite high relative to other ASEAN countries, women tend to be underrepresented in leadership positions at district and commune levels. For instance, women hold less than 30 percent of positions in agricultural and rural development organisations at provincial levels (UN Women, 2016).

UNDP and Oxfam have highlighted several factors that make women particularly vulnerable to climate change.

These include their higher dependency on natural resources for income generation, their concentration in the informal sector, household responsibilities that may prevent them from joining community gatherings, low ownership of land titles, negative coping strategies such as migration, and their limited decision-making capacity within the household and community.

Consequently, when designing adaptation strategies, women require particular attention, as structural inequalities mean that they have reduced access to the assets and financial opportunities necessary to transform and adapt their production to withstand shocks. Finally, most extension services target the head of households, whose role is traditionally fulfilled by men.

Ultimately, reducing or eliminating barriers women face in accessing resources such as land, chemicals, machinery and credit would reduce the current gender productivity gap by 20-30 percent, raising agricultural productivity in Viet Nam (FAO, 2010).

CASE STUDY: Climate-Smart Agroforestry – Gender Differences in Agro-Climate Information Services

(Duong, 2017)

ICRAF and CARE have implemented a three-year project in Viet Nam to address the above issues.

The **Agro-Climate Information Services** (ACIS) for women and ethnic minority farmers had two primary objectives: to generate new knowledge by looking at sex-disaggregated perceptions of agro-climate advisories, and to build capacity among local learning groups to further develop tailored information. The baseline survey ACIS conducted in Ha Tinh and Dien Bien provided many insights:

- Women earn less than men, and their income is more dependent on weather;
- Intra-household sharing of forecast information is low (below 40 percent);
- Men make the majority of farm decisions, while women are mainly in charge of buying inputs and selling crops to markets;
- Women gave more accurate indications on the ways disaster events had impacted their crops;
- Although women are often targeted by farmer training, they feel they possess less knowledge to cope with weather-related damage to their crops than their male counterparts;
- Women and men judged the information presented very differently, and disagreed on indicators such as the terminology, choices of pictograms, and acronyms; and
- Both genders preferred the sample depicting rainfall, temperature, and occurrences of cold and hot days in comparison to previous years or the baseline.



Reducing or eliminating barriers women face in accessing resources such as **land, chemicals, machinery** and **credit** would **reduce** the current gender productivity gap by **20-30 percent.**



III. WOMEN ARE DYNAMIC ACTORS IN CLIMATE CHANGE ADAPTATION

Women comprise an increasing share of the labour force in agriculture, forestry, and fisheries.

The recent feminization of the agricultural sector cannot be overlooked, as it has numerous implications for policymakers. Male migration from rural to urban centers affect women's welfare and their roles in rural communities differently. On one hand, it places an additional burden on women farmers, particularly on female-headed households. When male labour is not available to replace male farmers, women will conduct their tasks and perform additional agricultural activities, such as tillage and pesticide spraying, adding to their existing workload (UN Women, 2017). In other cases, their status positively evolves from unpaid labourer to managers as they hire workers, which leads to an increase in women empowerment (FAO, 2010).

Women contribute to adaptation in various sectors including Climate Smart Agriculture (CSA), Agro-Forestry, and Disaster Risk Reduction (DRR).

Women are key actors in delivering adaptation, as they often possess knowledge on intercropping, pest management, the type of crops most suitable to changing climatic conditions, water savings techniques, etc. (Huyer, 2016). Various organisations have placed women at the core of their adaptation strategies in different sectors to foster gender equality while targeting the entire population.

The center for Sustainable Rural Development (SRD) implemented a three-year project in Yen Bai province in Viet Nam specifically targeting women as the main recipients of farmer field school training.

They gained knowledge of rice conservation, new crop varieties, and biodiversity preservation. Women were involved at the start of the project, from design to delivery of the intervention. The training in adaptation strategies equipped women farmers with additional skills, which resulted in higher participation in the intra-household decision-making process.

The Viet Nam Women's Union developed a project called *Strengthening Women's Capacity in Disaster Risk Reduction and Climate Change Adaptation*.

The project aimed to raise awareness about CCA and DRR, build capacity, and advocate for better representation of women in the decision-making process. The success of the project allowed the Union to advocate for larger participation of women within the provincial Committees for Flood and Storm Controls (CSFCs). As a result, women are now permanent members of the Central Committee for Flood and Storm Control (CCFSC) and provincial CFSCs (WOCAN, 2014).

The World Agroforestry Center conducted a survey in northwest Viet Nam showing that women work longer hours than men.

Women worked longer hours performing the following activities: livestock raising, cultivation, and agricultural processing. Despite their high level of involvement in activities related to forestry, social norms tend to reinforce the idea that forestry is a male sector, and activities undertaken by women are of lower importance (Catacutan, 2015). Men were found to make all decisions related to on-farm activities, such as choices of crops, use of fertilisers, and selling price. Women had less knowledge of agroforestry techniques due to their limited exposure to media sources and training courses.

A survey conducted by the center for Sustainable Rural Development (SRD) corroborates these views.

Their findings indicate that gender inequality is prevalent in the agricultural sector. They report that 64 percent of land certificates are solely in the husband's name, while 25 percent are in both names; Small and Medium Enterprises (SMEs) in the timber industry employ 64 percent men; female workers receive a monthly salary that is VND500-700,000⁴ lower than that of men; and women were less likely to attend professional and occupational safety training (Nguyen, 2018).

Numerous pilots and techniques related to Climate Smart Agriculture are being implemented in Viet Nam.

These have been recorded by IPSARD on a dedicated [website](#). However, some challenges to the rapid uptake of CSA practices remain, including limited access to credit, lack of enabling policy conditions at provincial/district levels, and lack of cost-effective communication channels tailored to farmers' needs (CIAT, 2018; Nghia, 2018).

As the country engages in the revision of the NDCs and the NAP process, and aims to develop a resilient agricultural sector, there is a window of opportunity to develop a gender-sensitive approach to agriculture in which the needs and priorities of women farmers are considered.

⁴The minimum monthly salary in Viet Nam ranges from VND 2.92 million (US\$126) to VND 4.18 million (US\$180).

IV. ACCESS TO CIS FOR WOMEN'S EMPOWERMENT

Climate Information Services (CIS) in Viet Nam

Timely, accurate, and accessible agrometeorological information⁵ underpins farm decision making, and is thus essential to the adoption of Climate Smart Agriculture.

Smallholders are very vulnerable to crop loss from weather events; unpredictable climate conditions can destroy their production and put them at risk of falling into poverty. By communicating precise knowledge to farmers, Climate Information Services (CIS) help them overcome adverse weather conditions and adapt to long-term changes (Duong, 2017). Importantly, CIS should be practical to be easily translated into actionable farm choices.

CIS are well-spread across Viet Nam.

All 63 provinces have an extension services center operating under the Department of Agriculture and Rural Development (DARD). However, some challenges remain in the current system of extension services. At the district level, the coverage falls to 62 percent (equivalent to 506 districts) (Nghia, 2018). Moreover, the budget dedicated to extension services is limited: \$20 million in 2012, equivalent to \$2 per household, and there is only one extension worker per 280 farming households (Nguyen, 2012).

Other shortcomings include the tendency to deliver top-down information rather than demand-driven advice, few farmer field schools, and little promotion of indigenous knowledge and farmer-to-farmer exchanges (Nghia, 2017; CIAT, 2018).

To succeed in their endeavour, CIS and agro-advisories must consider the characteristics of the end-users; for instance, factors such as socioeconomic status, age, and gender.

New information and communication technologies related to agricultural services include websites, online portals, mobile applications, and the use of Geographic Information Systems (Dinesh, 2017).

The ease of understanding, the simplicity of the language used, and the choice of diagrams all have an influence on the way agricultural techniques are acted upon.

Farmers receive knowledge from farmers' unions, women's groups, and loan and microfinance institutions. Climate forecasts can be difficult to grasp; moreover, farmers may lack the knowledge to turn them into viable farming practices. This is where effective and innovative CIS could contribute with hands-on applications, for instance in the form of video clips. Also, the advisories should be clear enough to allow for sharing and understanding by all members of the family.

⁵ Agricultural advisory services or extension services are defined as the set of activities that make knowledge available to farmers, to assist them in developing their technical skills, so as to improve their livelihoods. They encompass a wide range of services, such as pest and disease forecasts, weather and extreme weather forecasts, information regarding new technologies, linkage of smallholders to high-value markets, and promotion of CSA techniques (INGENAES, 2015).

Considering the gender bias when developing gender-sensitive CIS

Women often bear the brunt of household responsibilities (e.g. caring for children and the elderly, household chores), which leave them with less free time.

This “time poverty” may prevent them from listening to radio broadcasts or attending community gatherings, thereby excluding women from receiving targeted advice (FAO, 2010; UN Women, 2016). Additionally, women may be constrained by social norms that make them reluctant to receive advice from male extension workers (Pham, 2014).

Further, women and men do not systematically use similar communication channels to look for agro-advisory information.

Some may watch TV programmes, while others will get their recommendations from neighbours, or the Women’s Union. Therefore, it is important to account for this heterogeneity, and deploy a broad range of communication channels to reach farmers (Mittal, 2016). In addition, the Vietnamese population exhibits high rates of literacy (95.6 percent in 2017); however, high discrepancies exist among provinces: there was 98 percent literacy in Ha Noi and HCMC provinces in 2018, while this rate fell to 62.5 percent in Lai Chau and 73.9 percent in Ha Giang (GSO, 2018).

Similarly, women’s and men’s actions and behaviours may vary when it comes to making farming choices.

Studies have shown that men are the primary decision makers when it comes to choosing crops, financial support (e.g. loans), and general land management choices. Also, the level of knowledge and application of coping mechanisms (e.g. intercropping) may diverge between genders. Partey (2018) demonstrated that although men and women had a similar perception of climate change, men were more responsive in adopting CIS for risk mitigation strategies. Moreover, men and women farmers do not always cultivate the same crops; for instance, raising poultry may fall under the particular responsibility of women. Focusing on the main cash crop may disadvantage women, as they may require more information regarding subsistence crops and/or kitchen gardening.

A study conducted by ICRAF in the context of a Disaster Risk Management project found that the level of awareness about climate change greatly varies between genders, with **60 percent of women** being unaware of climate change compared to **36 percent of men** (WOCAN, 2014).



V. DESIGNING GENDER-SENSITIVE CLIMATE INFORMATION SERVICES

Consider women's needs when designing communication strategies.

Inclusive communication strategies should leverage multiple channels and make information available in a manner that fits women's routines (e.g. at the market or in women's groups) and account for the potential discrepancy in literacy rates among men and women, especially among ethnic minority groups. It is essential to ensure that women and men have equal access to information, as it is tightly linked to gender equality (Mittal, 2016). For instance, studies have shown that an increase in income might improve women's social status and reduce conflicts in the household.

New CIS place a greater emphasis on bottom-up information gathering (Dinesh, 2017).

However, there are few existing mechanisms in Viet Nam to ensure the dissemination of lessons learned from successful pilots, or to harness indigenous knowledge from ethnic minorities to produce better agricultural policies. This is where gender inclusive CIS could reduce the knowledge gap and empower women by including them in the early stages of the design and co-creation of information.

The spectacular adoption rate of mobile phones and the equally fast increase of internet coverage in Viet Nam deserve the attention of policymakers.

In 2018, 70 million Vietnamese possessed a mobile phone (a penetration rate of 73 percent), 64 million had access to the internet (equivalent to 67 percent of the population), and 55 million had a Facebook account (We Are Social, 2018). A new system of agro-advisory services could leverage new technologies to carry targeted information to women farmers. Pilots in India delivering weather-based advisories through mobile-phones showed that men and women used the information to make better decisions regarding climate smart technologies, and their awareness of climate change increased (Mittal, 2016).



VI. CONCLUSIONS

1. **In the preparation phase of updating the NDCs and developing the country's National Adaptation Plan, Viet Nam has made tremendous progress in terms of developing new knowledge on risks, practices, and vulnerabilities⁶ in the agricultural sector.**

However, within the current framework, dissemination channels to communicate information about climate change adaptation to farmers have been slightly overlooked. Moving forward, it would be beneficial to place information at the core of Viet Nam's agricultural adaptation responses. The review of the NDCs and the NAP process⁷ could, therefore, act as a platform for designing and mainstreaming inclusive and innovative channels that combine weather information with general agro-advisory services, including marketing.

2. **If successful, a new system of Climate Information Services (CIS) could be extended to a variety of crops, in coordination with culturally informed dissemination channels, and would increase the current medium-to-low adoption rates of Climate Smart Agriculture practices among farmers.**

A system of monitoring and evaluation would enable quantitative assessment of impacts, and thus allow tool optimisations according to farmer's needs, by province.

3. **More research is needed to collect and analyse sex-disaggregated data in the field of climate change adaptation, and particularly in agriculture, building on the efforts of CARE International.**

Findings will allow policymakers and development practitioners to design action plans that do not reproduce underlying patterns of gender inequalities, while promoting effective adaptation strategies).

These initiatives will directly address the pursuit of the Sustainable Development Goals, particularly **Goal 2: Zero Hunger, Goal 8: Economic Growth, Goal 13: Climate Action, Goal 9: Innovation and Infrastructure, Goal 15: Life on Land, and Goal 16: Strong Institutions.**

⁶ The climate risk website has been launched, an extensive stocktaking of CSA practices and vulnerability assessments for four sub-sectors have been undertaken.

⁷ The NAP process is due to start in 2019.

APPENDIX

Proposed Baseline Study for the Gender Working Group

The proposed study would examine the status of extension services within a target province. The overarching goal would be to examine to what extent women farmers receive cost-effective CSA information. Specifically, are women farmers included at every stage? Is there an information gap that could be filled with the development or improvement of new communication channels? Can we identify areas of progress or gaps to develop alternative technologies that might be better suited to the needs of women farmers in these provinces?

The study should include:

- The identification of technologies to disseminate information;
- The examination of the roles of women and men in farm decision making;
- Their responsibility at the community level (e.g. the number of women who work as extension service agents, who hold leadership positions in farmers' groups, etc.);
- A stakeholder analysis involving community groups, banks and MFI, and the private sector (supplier and buyers) to assess success and failures of communication channels;
- Needs and preference in terms of information use with sex-disaggregated data (e.g. rainfall patterns, irrigation, soils conditions, and markets).

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