STANDARDS FOR COLLECTING SEX-DISAGGREGATED DATA FOR GENDER ANALYSIS: A GUIDE FOR CGIAR RESEARCHERS

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According to the CGIAR's Strategy and Results Framework, "gender inequality and its ramifications in terms of lower female education, women's lack of land rights, inequitable access to both income and agricultural inputs within the household, associated lack of control over investment decisions in the farm household, and the larger labor burden borne by women, all fundamentally constrain the ability to meet [its goals]" of reducing poverty, strengthening food security, improving human health and nutrition, and enhancing sustainable management of natural resources.[1] Without considering the role of gender, critical components necessary for the design and evaluation of programs, policies, and technologies may be missed, rendering them less successful and less likely to benefit both men and women. In order to monitor progress of CGIAR on its agreed outcome of "*Increased control over resources and participation in decision-making by women and other marginalized groups*"[2] as well as other development outcomes such as improvements in income, productivity, nutrition, and resilience, CGIAR researchers are increasingly asked to collect sex-disaggregated data and conduct gender analyses. This document spells out some simple and achievable steps for collecting relevant sex-disaggregated data for five broad research areas:[3]

THE RELEVANCE OF GENDER TO AGRICULTURAL RESEARCH

RESEARCH AREAS

1. **Baseline or descriptive research**: What crops are being grown and traded? Who is growing them? Who is trading them? What technologies are being used?   What natural resources do they use, and in what ways? What are the policies and institutions that shape the environment in which farmers and consumers make decisions? What are the returns to different forms of production, trade, or livelihood activities?
2. What are the **constraints** facing farmers?[4] In particular, what are the binding constraints that do not allow farmers to produce and trade more and earn better livelihoods?
3. Where are the **opportunities** for increased production and livelihoods? Where are the potential areas in which CGIAR could make an impact, whether through technological, institutional, or policy change?
4. How do farmers respond to living in a **risky environment**? These risks may be environmental such as climate change, economic through markets for both buying and selling goods, political, or personal such as health. How does the risk shape their decisions? Which people are particularly vulnerable?
5. What is the **impact** of projects, programs, and policies? How can projects be **designed** and **monitored** to be gender transformative? How does agricultural innovation affect women's economic empowerment? Are gender gaps in farm productivity, income, asset ownership, or sustainable intensification changing and why?

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[1] *A Strategy and Results Framework for the CGIAR*, 2011. This statement is echoed in the *CGIAR Consortium Level Gender Strategy*.

[2] *Common Gender IDO Memo*.

[3] This paper was first presented at the Workshop on Methods and Standards for Research on Gender and Agriculture, Montpellier June 19-21 2013, organized by the CRP Policies, Institutions and Markets (PIM) and CGIAR Gender and Agriculture Research Network. The authors wish to acknowledge the contribution of Network members in reviewing earlier versions of this paper.

[4] Note that throughout this document, "farmer" refers to all agricultural producers, including pastoralists and fishers.

A better understanding of the role of gender in the agricultural sector could greatly increase productivity, reduce poverty, and improve food security. Despite their significant contribution to the agricultural sector worldwide, women, on average, have access to fewer resources than do men. The FAO suggests that equalizing access to agricultural resources could increase yields by 20-30% and reduce the world's hungry by 12-17%; these estimates, however, are based on the very limited data that are currently available.[5] Moreover, simply improving women's access to resources may not result in permanent impacts unless complemented by transformative changes in the root causes of the inequalities. If gender is excluded from analysis in the five research areas above, then the findings will be incomplete or misleading. Thus, it is critical that both data collection and analyses pay attention to gender.

Gender analysis aims to illuminate "differences in the needs, roles, statuses, priorities, capacities, constraints and opportunities of women and men."[6] It is used to study how the evolving roles and relationships of men and women develop and interact in various contexts and how this affects outcomes. Therefore, one cannot study men's and women's roles in isolation. Moreover, gender norms are not stagnant but result from ongoing negotiation and compromise. Researching this process of change requires longitudinal studies that ideally make use of panel data as well as qualitative methods.

A common error in attempts to conduct gender analysis is to only study women. A limitation of this approach is that it can only shed minimal light on the relationship between men and women, a key component of understanding gender relations. For example, claims that "less than 2 percent of the world's land is owned by women" are meaningless without knowing the comparable percentage of the world's land owned by men.[7]

Both the biological and the socially constructed roles of women and men, along with an array of socioeconomic and institutional factors, contribute to disparities in their agency, constraints, preferences, needs, and beliefs. To develop effective agricultural technologies, programs, and policies, one must first understand how differences and similarities are manifest in various contexts. For example, men, women, boys, and girls have different nutritional requirements, which also vary based on age and whether or not women are pregnant. While these distinctions hold true across all cultures, the approaches to addressing them will likely differ. Additionally, men and women may grow different crops as a result of their access to extension services, inputs, and credit markets as well as their preferences, which are often shaped by their responsibilities. This differential access to and control over assets, as well as inequalities in labor markets, can also affect the efficiency of value chains and the ability of both men and women to participate in and benefit from them.[8] These variations between men and women can differ significantly across contexts.

Macroeconomic policies influence markets as well as economic and social infrastructures, which in turn affect individuals and households. These linkages can be analyzed to identify the impacts of programs, policies, and technologies on men and women, boys and girls, as well as how gender relations affect the efficacy of an intervention. Gender analyses based on sex-disaggregated data allow researchers and policymakers to better understand responses to interventions and develop more effective policies. Thus, it is important to investigate how and why actions are taken and who benefits from the outcomes. These gender analyses necessitate collecting data on individuals, which will facilitate additional analysis through disaggregation across a range of characteristics, including race, age, religion, or marital status.

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[5] *The State of Food and Agriculture, Women in Agriculture: Closing the gender gap for* development, 2011. As the SOFA points out, data for the share of women agricultural holders and the number of people who are undernourished were available in only 34 countries. Moreover, most of the studies estimating the yield gap between male and female farmers were conducted in sub-Saharan Africa. The SOFA estimates assume that these yield gaps are representative of other developing countries.
[6] *CGIAR Gender Scoping Study*, 2010.
[7] Doss et al. "Gender Inequalities in Ownership and Control of Land in Africa: Myth versus Reality," 2013.
[8] Barrett, Manfre, and Rubin. "Promoting Gender Equitable Opportunities: Why It Matters for Agricultural Value Chains," 2009.

GUIDELINES

Given the increased attention to gender research, both within CGIAR and among external partners and donors, researchers are expected or even required to conduct gender analysis, which necessitates collecting relevant data. The information below is intended to serve as guidelines for collecting sex-disaggregated data. A forthcoming document on good practices in data collection for gender analysis will provide more detailed recommendations. In many cases, simple changes in survey design or research methodology can allow for much richer gender analysis.

Before collecting sex-disaggregated data, researchers must clearly identify the research questions. This allows the targeting of data collection to the key issues. It is also necessary to carefully budget for additional costs. These costs will vary widely, depending on the data collection method. For example, adding additional questions to a survey is less expensive than collecting information from additional respondents or increasing the number of focus groups. Researchers must consider the tradeoffs of these different methods and employ those which will most effectively address their research question(s). In some cases, it may be possible to collect sex-disaggregated data with little if any additional cost.

UNIT OF ANALYSIS

Identifying the appropriate unit of analysis is essential for good research and key to identifying where to incorporate sex-disaggregated data. For agricultural research, these often include:

- **Individual:** A farmer or a worker along a value chain are examples where an individual is the unit of analysis. Understanding individual choices, preferences, or decisions requires interviewing the individual.
- **Household:** Agricultural households are both producers and consumers. To consider all of these activities, the household may be the appropriate unit of analysis. Important information about the household may include the sex and age composition of its members.
- **Intrahousehold:** To understand what happens within the household, the focus may be on intrahousehold analysis. This does not treat the household as a single unit, but seeks to understand how multiple individuals within the household interact and affect outcomes.
- **Community:**[9] Communities may be the focus of policies or interventions.
- **Regional or national**: For cross-country comparisons, including those of trade or policies, national or regional analysis is appropriate.
- **Land area**: Spatial analyses of how various policies affect land use may use land areas as the appropriate unit of analysis. Land parcels may be the unit of analysis for analyses of agricultural production.
- **Resource unit**: A forest, watershed, or lake may be the appropriate unit of analysis for questions about natural resource management.
- **Formal or informal organizations**: These may be farmer cooperatives, extension service providers, credit banks, water user groups, micro-finance groups, self-help groups, etc.
- **Value chain:**[10] The value chain, or a node along it, may be the unit of research.

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[9] Defining the "community" is problematic. While often used to refer to a habitation unit, in heterogeneous societies, caste or ethnicity may cut across habitation units. For our purposes, "community" refers to some aggregation above the household, which has commonalities, at some level, in biophysical, locational, or cultural terms.

[10] With support from CRP 2, Policies, Institutions, and Markets (PIM), the Value Chains Knowledge Clearing House will feature a Gender in Value Chains Toolkit to assist value chain researchers in applying tools to measure gender differences in remuneration and time expenditures along the value chain, gender segregation in various occupations, and differences in employment and working conditions.

WHO SHOULD PROVIDE INFORMATION?

An important consideration in collecting data for gender analysis is who should serve as the respondent in individual interviews, focus groups, and other data collection methods. The answer depends on both the research questions and the unit of analysis. The respondent must be able to provide complete and correct information. For example, if the research is about farmers, the farmer(s) should be interviewed; do not simply assume that the household head is the farmer. If the research focuses on household food consumption, address questions to the person responsible for purchasing, preparing, and allocating food among household members. For the perspective of men and women along a value chain, male and female workers must be interviewed. If questions ask about individuals -- their preferences, willingness to pay, empowerment, etc. -- one person may not be able to answer for another. Even within a household, husbands may not know their wives' preferences, income, or assets (and vice versa).

Many surveys with an individual or household as the unit of analysis choose one person to interview. Typically, this is the person identified as the household head, an individual farmer, community member, or worker. A set of questions may be used to identify the correct respondent, identifying who is most knowledgeable or who makes decisions about the subject. It is important to word the questions so that the appropriate person, whether male or female, responds. If a common response is that the spouses decide together, it may be appropriate to randomly choose in each household whether to interview a husband or wife.

For gender analysis, it is indispensable to interview both men and women. This does not necessarily mean interviewing twice as many people or that men and women in the same household must be interviewed. For some research questions, it may be preferable to interview one person per household and randomly choose whether it is a man or woman.

Intrahousehold analyses, those that seek to understand relations between individuals within the household, require information from multiple people – usually one man and one woman – within the same household. This is the approach used in the Women's Empowerment in Agriculture Index surveys. This provides information on the perspectives of different members of the household and may reveal systematic differences by sex.

Regardless of the method used to collect information, whether it is a structured interview, a focus group, a participatory evaluation, or a transect walk, choosing appropriate respondents (both male and female) is necessary for valid gender analysis. All methods must make sure that both women's and men's perspectives are represented and identified. Participant selection should also ensure the representation of other relevant categories and social groupings, such as socioeconomic status, ethnicity, migrant status, or age. For all methods of data collection, researcher(s) must be cognizant of how gender and other social norms might inform a response.

In general, information collected publicly, such as focus group interviews, will provide information on social norms and accepted practices; exploring patterns of actual practices usually requires more private or individualized data collection. Ethnographic methods such as participant observation may be better suited for eliciting practices that are not talked about, such as spouses hiding assets from each other.

Regardless of who is interviewed, it is important to always note who the respondent is, with some basic identifying information, including sex, age, and marital status.

ASK THE "WHO" QUESTIONS

Collecting sex-disaggregated data requires not only identifying the right respondents but also asking them questions about themselves and/or others. Changing a question from "Does the household...?" to "Who in the household...?" can generate a wealth of sex-disaggregated data. The key to gender analysis is knowing the sex of the people involved in various tasks, such as the owner of the land, the farm manager, the laborer, or the decision maker, and identifying why responsibilities are divided in this manner.

There are two basic options when coding the "who" questions. One is to code by sex, noting whether it is a man, woman, boy or girl. This meets the minimum standard for collecting sex-disaggregated data. For survey data collection, a better option is to list the ID code of the person identified. Matched with basic information in a household roster, this allows the "who" to be identified not only by sex but also by age and relationship to head (and any other data in the roster). Codes for men outside the household and women outside the household can also be created. Other methods of data collection can similarly collect detailed information about individuals. Analysis of data collected using the second approach allows for a deeper understanding of how gender interacts with other individual characteristics. For example, if all of the women with decision making power are older, targeting young women for extension services may be ineffective or may require special design.

In some cases, it is appropriate to ask one person questions about others in the household. For example, a farmer may be able to identify everyone who works on a particular plot. For other questions, such as those about individual preferences, perceptions, or empowerment, a respondent may only be able to answer accurately about him or herself. Researchers must be mindful of when asking the "who" questions is adequate, and when speaking to each individual about him or herself is required.

MUST HAVES FOR GENDER ANALYSIS

❖ Collect information about both men and women. Ask questions about specific individuals or groups and identify them by sex.

❖ Collect information from men and women. This does not necessarily require interviewing men and women in the same household. Studies that fail to include male and female respondents will be subject to biases; the extent of the bias will depend on the knowledge and perceptions of the respondent(s).

❖ All data collection methods must be context specific. Questions must be adapted to the context. Those collecting and analyzing the data need to understand gender roles and social dynamics. This knowledge must also guide the settings for interviews or focus groups.

❖ Budget for the additional costs of collecting sex-disaggregated data.

❖ Work with a gender expert early in the process to define the research question and methodology.

❖ Researchers collecting data from human subjects must ensure that the participants have completed a confidentiality and consent agreement. While these requirements are important for all research, they are essential for gender analyses that address sensitive topics such as asset ownership and domestic violence.

❖ Comparing male and female headed households is not gender analysis. Differences between these diverse household types cannot necessarily be attributed to the sex of the household head.

Due in part to the lack of data on individuals within households and in part to a lack of understanding of gender analysis, it is common practice to compare male and female headed households. This should not be considered gender analysis, as it confounds gender and household structure. Because women frequently live in male headed households, but female headed households are often defined as not including an adult man, the two are not comparable. In addition, this approach renders the women living in male-headed households – the vast majority of the world's women – as invisible. However, analyses that further disaggregate based on type of headship (such as de jure or de facto) or marital status can contribute to a more nuanced understanding of how different forms of headship relate to development outcomes.

CONSIDER THE CONTEXT

The data collected should be driven not only by the research questions but also by the context. Given the heterogeneity of gender relations, research on gender cannot follow a one-size-fits-all approach. Questions must be adapted to the context and those collecting and analyzing the data need to understand gender roles as well as other dimensions of identity such as religion, race, class, ethnicity, age, caste, remoteness, disability, or sexual orientation. Acquiring background knowledge of this nature is good practice for any data collection effort. It will allow researchers to develop questions that are culturally sensitive, ensure that the questions are relevant, and that the researchers, enumerators, facilitators, and respondents all have the same understanding of the terms included in each question.

The specific context for the interview is important. It may – or may not – be necessary for enumerators or facilitators to be the same sex as the respondents. Depending on the questions and the context, it may – or may not – be appropriate to conduct the interview in private.

Understanding local gender relations and social dynamics can also guide the settings for interviews or focus groups. If it is not appropriate for women to speak up when men are present, it is necessary to collect information from women separately. But if women can and do assert themselves with men present, it can be informative to listen to them discuss the issues among themselves.

ADDITIONAL RESOURCES

- Promoting Gender Equitable Opportunities: Why It Matters for Agricultural Value Chains
- A Toolkit on Collecting Gender & Assets Data in Qualitative and Quantitative Program Evaluations
- Practical Tips for Conducting Gender-Responsive Data Collection
- Integrating Gender into Forestry Research: A Guide for CIFOR Scientists and Programme Administrators
- Gender, Nutrition - and Climate-Smart Food Production: Opportunities and Trade-Offs
- Gender Analysis in Macroeconomic and Agricultural Sector Policies and Programmes
- Gender in Agriculture: 17-Module E-Learning Course
- The Gender Asset Gap Project: Collecting Sex-Disaggregated Asset Data

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