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**A Guide to Developing Quantitative Tools for Measuring
Gender Norms in Agrifood Systems**

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ABSTRACT

Increasingly, gender transformative approaches (GTAs), which seek to transform the underlying causes of gender inequalities, including discriminatory gender norms, are being used in agrifood systems (AFS) interventions. A growing body of evidence finds that GTAs contribute to positive impacts on a wide range of important development outcomes and have potential for improving gender equality. One limitation to better understanding changes in AFS-based gender norms as a result of GTAs is a lack of appropriate quantitative tools for measuring these norms. This work is an important step in filling that gap. Herein we detail the collaborative process that we undertook in Nigeria and Tanzania to develop a quantitative approach to measuring gender norms in the cassava, poultry, and fisheries value chains in each country. We then provide guidance for how implementing and research partners using GTAs in AFS can apply our learnings to their own work.

Keywords: Gender norms, Gender transformative approaches, Measurement, Nigeria, Tanzania

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This work was undertaken as part of the CGIAR Research Initiative on Gender Equality: <https://www.cgiar.org/initiative/gender-equality/>. The initiative aims to use impactful gender research to address the four dimensions of gender inequality by applying gender transformative approaches to harmful norms, bundling sociotechnical innovations for women's empowerment, leveraging social protection to increase women's access to and control over resources, and promoting inclusive governance and policies for increased resilience. We would like to thank all funders who supported this research through their contributions to the CGIAR Trust Fund: <https://www.cgiar.org/funders/>. We would also like to thank stakeholders in Tanzania and Nigeria and outside these countries for their meaningful contributions, feedback, and interest when developing the various tools and processes and when attending the various consultations and validation events.

ACRONYMS

AFS	Agrifood system
CGIAR	Consultative Group for International Agricultural Research
EFA	Exploratory factor analysis
IFPRI	International Food Policy Research Institute
IITA	International Institute of Tropical Agriculture
LMIC	Low- and middle-income country
SEM	Socio-ecological model

1. INTRODUCTION

Why is this Guide needed?

Agrifood systems (AFSs) encompass the full range of actors and activities involved in the agriculture sector, as well as the policies, standards, and norms that affect production and market access. Agrifood systems are a major employer for women: globally, 36% of working women work in agrifood systems (FAO 2023). Yet, how men and women participate in agrifood systems, and how they benefit from their participation, are often not equal.

AFS researchers and practitioners are increasingly aware that barriers to improving gender equality in AFSs are often sociocultural, deeply rooted in the expectations and beliefs about the roles of, and behaviors appropriate for, adolescents and youth, girls and boys, young women and men in a given society (Morris and Rushwan 2015). Among the sociocultural beliefs and rules affecting gender equality in AFSs, understanding gendered social norms (or gender norms)—the often informal, unspoken and unwritten rules that govern which behaviors are appropriate within a given group (Cialdini, Kallgren, and Reno 1991)—is fundamental to addressing structural gender inequalities in AFSs and achieving sustained and lasting impacts through development programs.

Gender transformative approaches (see Box 1) aimed at changing discriminatory gender norms have been shown to have positive impact on, for example, women’s empowerment (Cole et al. 2020; Lecoutere and Chu 2023), prevention of intimate partner violence (Semahegn et al. 2019; Jewkes, Flood, and Lang 2015), and women’s and girls’ health and nutrition (Weber et al. 2019; Heise et al. 2019; Farnworth et al. 2023). Such approaches thus hold potential for not only promoting gender equality but also improving other important development outcomes.

Box 1. What is a gender transformative approach?

According to FAO et al. (2023: 1), a gender transformative approach “seeks to actively examine, challenge and transform the underlying causes of gender inequalities rooted in discriminatory social institutions. [It] aims to address the unequal gendered power relations and discriminatory gender norms, attitudes, behaviors and practices, as well as discriminatory or gender-blind policies and laws, that create and perpetuate gender inequalities. By doing

so, it seeks to eradicate the systemic forms of gender-based discrimination by creating or strengthening equitable gender relations and social institutions that support gender equality.”

Who are the intended users of this Guide?

This Guide is intended for researchers and practitioners who wish to better understand and transform gender norms as the root cause of gender inequalities and women’s disempowerment in AFSs.

Understanding the impact of gender transformative interventions, as well as the links between gender norms and other AFS outcomes, requires high-quality data and measurement tools designed to measure changes in gender norms. Yet, prior to the development of this Guide, there was no existing, ready-to-use tool to measure and track gender norms specific to AFSs.

To address this gap, the CGIAR Gender Equality Initiative (see Box 2) developed this Guide, which contains step-by-step guidelines and templates to aid users in the participatory development of measures of gender norms in AFS and, where applicable, draws on empirical examples based on piloting of the Guide in Nigeria and Tanzania.

Box 2. The CGIAR Gender Equality Initiative

[Gender Equality](#) is a CGIAR research initiative working to achieve climate resilience by strengthening gender equality and social inclusion across food systems in the Global South. It works with partners to support women to expand their voice and agency. The Gender Equality Initiative aims to help women acquire and control assets, to help them adapt to climate change and related shocks, and to help them access services in market, financial and public sectors. Through conducting empirical research and scholarly reviews, the Gender Equality Initiative aims to achieve a better understanding of four dimensions of inequality: (i) women’s lack of agency to set their own goals and make their own decisions, (ii) women’s lack of access to, and control over, resources, such as land and water, (iii) restrictive social norms that discriminate against women, and (iv) policies that fail to include and benefit women. Improved knowledge will ensure the Gender Equality Initiative is well placed to develop measures to challenge and overcome gender and social inequalities.

How was the Guide developed?

The Guide was developed through a collaborative process, carried out beginning in November 2022 and remains ongoing, involving researchers from the International Food Policy Research Institute (IFPRI), International Institute of Tropical Agriculture (IITA), FHI360, and KIT Royal Tropical Institute, as well as local stakeholders and AFS experts working in Tanzania and Nigeria. A survey was developed using the Guide. It was piloted within the cassava, poultry, and fisheries AFSs in Tanzania and Nigeria, beginning with stakeholder consultation workshops in Tanzania in June 2023 and in Nigeria in August 2023, and culminating in stakeholder dissemination workshops in Tanzania in November 2023 and in Nigeria in December 2023.

The cassava, poultry, and fisheries AFSs were selected for the initial piloting of the Guide for several reasons. Primarily, because they are incredibly important for helping women, men, and youth smallholder farmers and other value chain actors secure their livelihoods in many low- and middle-income countries (LMICs). In addition, because women and men have unique roles within each of these AFSs, we expected normative constraints within them to differ. Tanzania and Nigeria were selected as focal countries because discriminatory social institutions have considerable influence on women's empowerment and gender equality outcomes (Abdul-Isma'il et al. 2021; OECD 2022) and because both countries are in regions considered climate hotspots (Szabo et al. 2016).

Given the foundations of this Guide in cassava, poultry, and fisheries AFSs in Tanzania and Nigeria, those working in these AFSs will find many of the examples and items developed directly relevant to their work. Nonetheless, while the focus of this Guide is on the measurement of norms most relevant to women working in AFS, we expect that program designers and implementors in other sectors—education, health, livelihood security, governance and more—will find useful guidance here on how to measure gender norms. This Guide is not exhaustive, nor do we intend it to be prescriptive. Rather, we hope that it may serve as a practical, actionable resource for researchers and practitioners throughout the project cycle.

How is the Guide organized?

The remaining four sections of this Guide orient the user to our terminology and conceptual framework and stepwise process to identify, select, adapt, and use a gender norms measurement approach. We suggest that all users review Section 2 to orient themselves to which norm measures are included in this Guide and how we developed these measures. Which step of the participatory process a user should start on after that depends on how much information they already have about the relevant gender norms in their programmatic context, and on where they are in the project cycle.

2. CONCEPTUAL ORIENTATION TO MEASURING GENDER NORMS IN AFS

Before using this Guide, it is important to establish common understanding of how we define gender norms and what types of gender norms we conceptualize as most germane/critical to AFSs. In this Guide, our focus is on gender norms, which are the subset of social norms that define acceptable and appropriate behavior for men, women, girls, and boys (Cislaghi and Heise 2020). Broadly speaking, gender norms in AFSs matter, because they dictate and reinforce social inequalities that affect women's and men's (often unequal) access to economic opportunities, resources and freedoms, as well as their agency and power (Cislaghi, Manji, and Heise 2018). Understanding how gender norms shape economic opportunities is especially important in the context of AFSs in LMICs where small-scale and homestead production are common, and the ability to produce larger quantities and increase value via processing and marketing is often dictated by access to individual resources. The ability of women and men in LMICs to be successful in AFSs is tied to deeply entrenched gender inequalities, for example, with regards to women's roles and the division of labor within households, as well as women's freedom of movement and the livelihoods and activities viewed as acceptable for women to engage in outside the household (FAO 2023).

The collaborative process to develop this Guide began with an extensive literature review and the development of a conceptual framework for understanding gender norms in AFS (Seymour et al. 2023; Pyburn and Hallin 2023). Over 100 resources were identified, coded, and reviewed using qualitative software. Based on the literature review, we drafted an initial framework to conceptualize which norms to measure. We then convened a stakeholder consultation with experts working on gender in AFSs to obtain feedback on the framework and conducted phone interviews with other AFS experts to similarly solicit feedback on the framework and on the gender norms that they perceived to operate and be most critical to facilitating gender inequality in the AFSs in which they worked.

Contextual considerations for measuring norms in AFSs

The results of our literature review, consultations and phone interviews led us to four central considerations and insights for the framework/foundations of norms measurement in AFSs.

Value chains

The first of these was the importance of considering the organizational structure and work roles within AFSs. Individuals working in AFSs perform different roles and these roles are generally organized and conceptualized as a value chain (see example value chain in Figure 1). A value chain is a series of consecutive steps that go into the creation of a finished product that is consumed by customers. An agricultural value chain identifies each step in the process at which value is added to an agricultural product as well as the stakeholders or actors involved in each step. Let us take the cassava value chain as an example. Typically, the first step in an AFS value chain is the cultivation of the food, in this case, cassava, and the individuals responsible at this step are typically termed producers or farmers. After the cassava is cultivated/produced, the next step in the value chain is the processing of the cassava, which is undertaken by processors. Once processed, the cassava is sent to markets to be sold by marketers or traders and once sold the product is consumed by consumers.

An understanding of the AFS value chain for this work is critical for two reasons. For one, each place on the value chain entails different tasks and therefore different normative expectations for those tasks and behaviors. For instance, a trader may be affected by norms that dictate when a female trader can go to the market and whether she can go without a male companion whereas a producer may be affected by norms that dictate who does the manual labor of harvesting versus who operates the larger harvesting machinery. Furthermore, there are power dynamics across levels of the value chain that affect normative expectations across levels of the value chain. For instance, women may be normatively constrained in some contexts to only performing tasks associated with lower levels of the value chain and not allowed to hold jobs further up on the value chain.

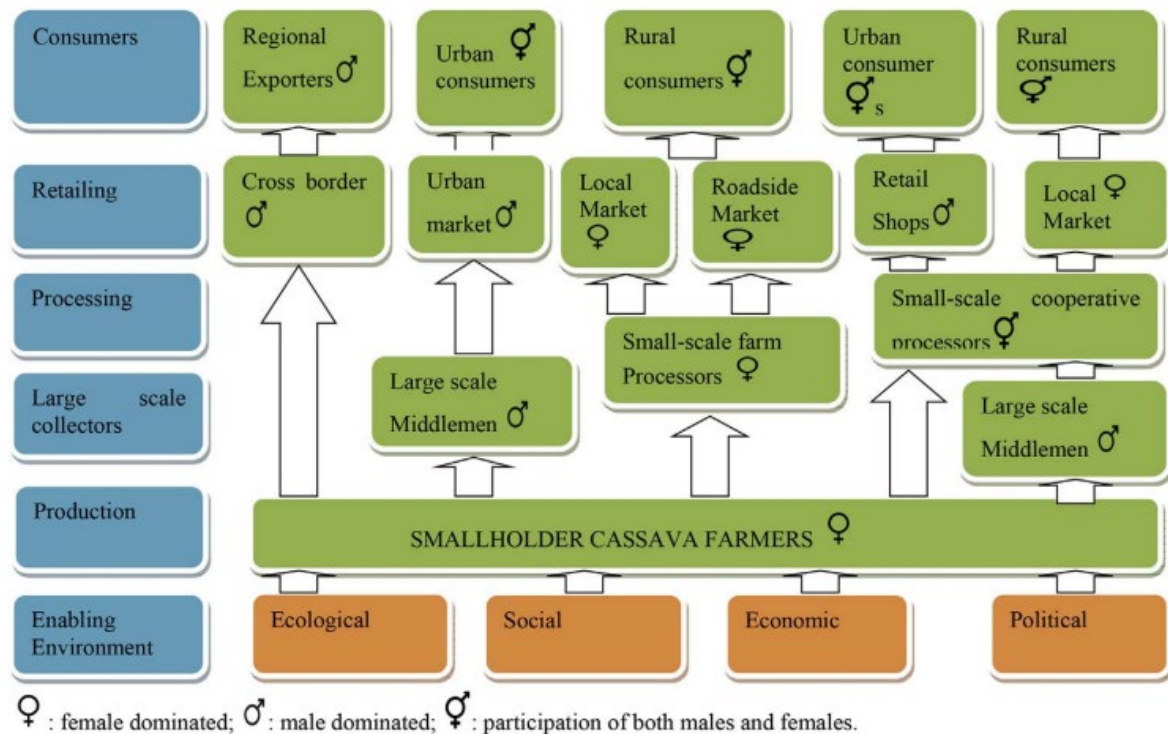


Figure 1. Illustrative example of a gendered cassava value chain relating to smallholder farmers in Tanzania

Source: Masamha (2018)

Socio-ecological model (SEM)

A second foundational layer is the socio-ecological model (SEM). The SEM is a systems-level model that considers how individuals and their environments interact to influence behaviors and outcomes (Bronfenbrenner 1979; McLeroy et al. 1988; Glanz, Rimer, and Viswanath 2008). The model assumes that interactions between individuals and their environment are reciprocal, implying that an individual is influenced by their environment and the environment is influenced by the individual.

The model is typically depicted as nested concentric circles that distinguish multiple different levels within which individuals are nested. There are different variations of SEMs that depict anywhere from three to six distinct levels of influences within which an individual is nested. Over the course of our initial collaborative process, we determined that there were five levels most relevant to include in a measurement framework for gender norms in AFSs. In addition to the individual level, which is where the gender norms are experienced by individuals, we identified four additional levels at which gender norms,

that affect those working in AFSs, operate and are influenced. As shown in Figure 2, these include: the household, community, organization, and governance and enabling environment levels. As shown in the bar at the top of the Figure, the influencers of norms at each level of the SEM are distinct. The principal influencers at the household level are household dynamics and decision-making among family members. At the community level, the leadership structure and civic committees are likely to be principal influencers of existing norms. At the organization level, the organization and makeup of the value chain of AFS actors influence existing norms. Finally, the influencers at the governance and enabling environment level are the broader policies and laws in effect in a particular context.

SEMs can be depicted vertically or hierarchically with the individual level at the bottom/left proceeding up/right to the other larger levels within which the individual is nested. For the purposes of our SEM-based conceptual framework, the SEM is on its side and depicts the levels proceeding from left to right. Also shown on and useful to this conceptual framework are the potential gender transformative interventions that could be designed and implemented based on findings and how they differ based on the level of this SEM. For instance, if the norms identified as most restrictive to women pertained mostly to the household level than gender transformative interventions might involve activities with spouses whereas if the primary norms identified have to do with women's restricted access to trainings in the workplace this would likely entail a capacity-building intervention together with an organizational culture change intervention.

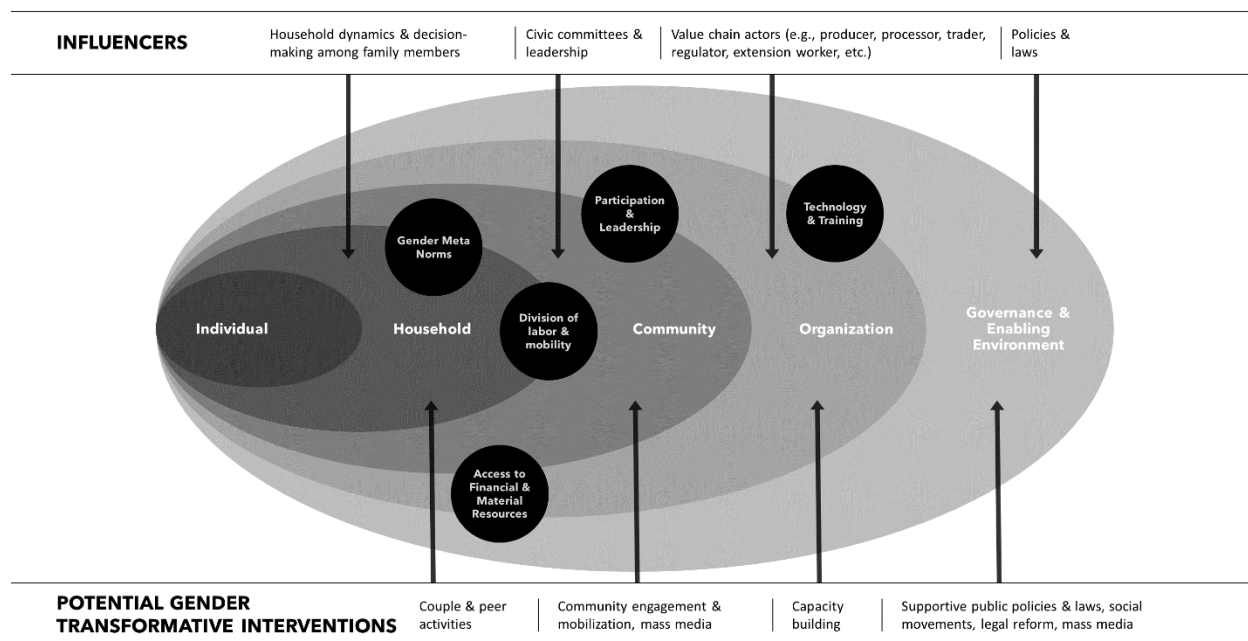


Figure 2. Conceptual Framework

Source: The authors

Norm domains of central interest

Our literature review and consultations were also instrumental in bringing a focus to the types of norms deemed to be of greatest relevance and importance to men and women working within AFSs in LMIC settings. Information, data, and feedback gleaned from the literature and consultations enabled us to identify that the types of gender norms emerging as most critical to the AFS context fell into five principal domains.¹ As shown in the black circles in Figure 2, these five domains of gender norms include access to 1) financial and material resources and 2) technology and training, as well as 3) decision-making and mobility within the AFS value chains and 4) participation and leadership in the AFSs, and 5) norms that we termed gender metanorms.

¹ As noted in the earlier section describing the process undertaken to develop this Guide, the initial development and piloting of measures was undertaken within the cassava, poultry, and fisheries AFSs in Tanzania and Nigeria. As such, many of the stakeholders who advised on the items and domains were from within these specific AFSs. While we believe these domains and corresponding items have applicability across other AFSs in similar LMIC settings, it may be that other domains or items are needed for those contexts.

Examples of items included in the financial and material resources domain were related to norms about whether it was inappropriate for women working in AFSs to control their own earnings or to own productive assets such as farm or processing equipment or motorized vehicles in their own name. In a similar fashion, examples of items included in the technology and training domain covered norms related to whether it was inappropriate for women working in AFSs to use or adopt cassava-based technologies (i.e., new varieties, new processing technologies, new marketing techniques) when they are first introduced. In the decision-making and mobility domain, we included items such as asking about whether it was inappropriate for women working in AFSs to go to the cassava fields without their spouse/partner or a male relative or to operate agricultural machinery or mechanized equipment on their own. The participation and leadership norms that we asked about addressed whether it was inappropriate for women to participate in agricultural extension trainings or be members of an agriculture or producer group.

Finally, the term metanorms refers to particularly influential norms that “connect with deeply rooted determinants [and] operate at a more profound level of society and influence multiple behaviors” (Petit and Zalk 2019). In this domain, we placed norms that were likely to exist for all women in a given context rather than just for women working in a specific AFS. Specifically, we included here questions about norms that would affect household decision-making and control of resources and bodily autonomy and freedom from violence.

Valuable to this conceptual framework, each of the norm domains (i.e., black circles in Figure 2) are placed on or within the SEM levels at which they would primarily operate and be influenced. For instance, participation and leadership norms are likely to affect women in both the community and the workplace whereas norms dictating technology and training are expected to be influenced and operate at the workplace and governance levels.

Injunctive vs. descriptive norms

Not shown in the conceptual framework but also important to understand in using and adapting the measures developed for this Guide is the structure of norm measures themselves. Broadly speaking, social norms are defined as informal and unwritten rules that guide behavior within social groups (Horne 2001). Within this broad definition, however, numerous more specific conceptual and operational definitions of social norms exist within a range of theoretical models across diverse social science disciplines. For the measures included in this Guide, we drew upon the conceptualization of Chung and Rimal (2016) who suggest that a social norm may be evidenced through the existence of either or both a descriptive and an injunctive norm. Chung and Rimal portray descriptive norms as perceptions about whether others perform the behavior and injunctive norms as pressure to conform to norms to avoid negative social consequences such as exclusion or sanctions, or alternately, to gain social approval (Chung and Rimal 2016; Yzer 2012).

Therefore, consistent with social norms theory, for each norm of interest we developed questions/items to assess both manifestations of each selected norm, i.e., the descriptive and the injunctive norms (Cialdini et al.). For the descriptive norm items to assess individuals' perceptions about what other people do, these items were generally phrased as, "Of the women who you know in your community or social network, how many do you think leave the house without permission from their spouse/partner?" In contrast for the injunctive norm items to assess individuals' perceptions about others' approval or disapproval, these items were generally phrased as, "How many people in your broader community or social network do you think would agree that it is inappropriate for women to leave the house without permission from their spouse/partner?" The reason for including both manifestations of each norm is that they are each theorized as providing important and unique information about how norms affect behavior (Lapinski and Rimal 2005; Rimal and Lapinski 2015). In addition, in the theory of normative social behavior (Lapinski and Rimal 2005; Rimal and Lapinski 2015), the authors argue that injunctive norms strengthen or attenuate the relationship between descriptive norms and the outcome (an attitude or behavior).

3. A STEP-BY-STEP PARTICIPATORY PROCESS FOR MEASURING GENDER NORMS IN AFS

A five-step participatory process to develop context-specific indicators for measuring gender norms in AFS is summarized in Figure 3 and described in detail below. This process is intended to help users apply the framework and concepts presented in the Guide, tease out gender norms in the target AFS(s), and then develop quantitative indicators to measure these norms. It includes examples of each step drawing on piloting of the Guide in Nigeria and Tanzania.

Prior to the development of the norm indicators and the implementation of the five steps, it is expected that a project team will have carried out a thorough assessment to identify and understand the gender norms that influence specific behaviors and thereby contribute to gender inequality in the target AFS(s).²

To use the Guide to measure gender transformative change it must be accompanied by additional measures of changes in social and power relations at different levels. FAO et al. (2023) provide guidelines for measuring gender transformative change in the context of food security, nutrition, and sustainable agriculture. They conceptualize gender transformative change as a process comprising three dimensions: agency, power relations, and social institutions, and further distinguish between formal and informal social institutions. Formal social institutions comprise the written policies and laws imposed by governments and other authorities that regulate individual and collective rights. Informal social institutions comprise social norms, as well as customs, values, and traditions within a specific group. Measuring gender transformative change requires assessing change across all three dimensions (agency, power relations, and social institutions) and across the relevant spheres of influence (e.g., individual, household, community). Thus, while this Guide can be used to develop context-specific indicators and measure changes in the prevalence of informal social institutions (gender norms), additional indicators

² For an example of a social norms assessment, see the Social Norms Exploration Tool developed by the Institute for Reproductive Health at Georgetown University: <https://www.irh.org/social-norms-exploration/>.

must be used to measure changes in agency, power relations, and formal social institutions if the user wishes to holistically measure gender transformative change.

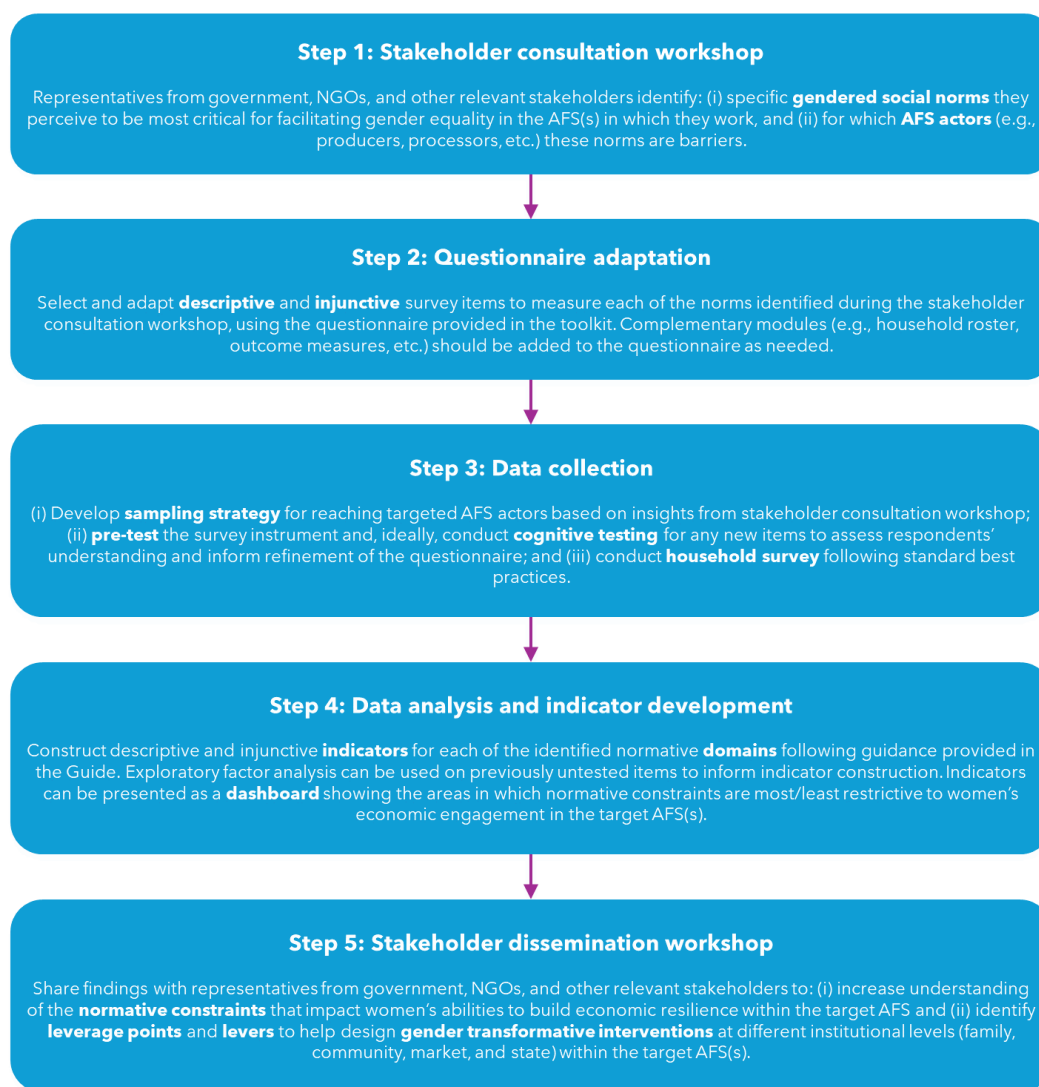


Figure 3. Five-step participatory process for developing measures of gender norms in AFS

Source: The authors

Step 1: Stakeholder consultation

The first step of the process is to consult with local experts to identify: (i) specific gender norms they perceive to be most critical for facilitating gender inequality in the AFS(s) in which they work, and (ii) for which AFS actors (e.g., producers, processors, etc.) these norms are barriers. The stakeholders invited to the consultation should include representatives from government, NGOs, universities, research institutes, and other relevant organizations with experience working in the target AFSs and knowledge of local gender norms.

We recommend convening an in-person workshop, which allows stakeholders to engage with one another, as well as with the research or development project team. However, other formats, such as a virtual workshop or one-on-one interviews could also be used to facilitate the consultation. Regardless of the format used, the Gender Norms in Agrifood Systems questionnaire (provided in Annex 1) or any prior assessments carried out by the research or development project team on gender norms in the study area should be used as starting points for discussions with stakeholders regarding which gender norms and actors they perceive to be most critical for facilitating gender inequality within the target AFS(s).

Notably, Rietveld et al. (2023) carried out an evidence synthesis of prior studies on gender norms in AFSs from around the globe. The authors identified fifteen gender norms as consistent barriers to women's capacity to adapt to climate change and build and maintain their livelihoods, shown below in Table 1. The identified gender norms range across different institutional levels (i.e., household, community, and organization) and pertain to both food production and food consumption. Their findings could be used as a starting point when working with local experts to identify gender norms in AFSs that are salient in a given context.

Table 1. Summary of global evidence on gender norms in AFS

Food Production	Men are primary income earners Men are household heads and decision-makers Women are responsible for childcare Men manage productive resources such as land and other assets Women grow subsistence crops Men speak in public Knowledge and support networks are mostly gender specific Women should not build up capital Women are not recognized as food system actors by organizations Women are not recognized as decision makers over land Women's communal land rights are ignored
Food consumption	Men receive priority in food allocation Women are responsible for food preparation Women are expected to reproduce cultural food norms Women are framed as responsible for food provisioning

Source: Rietveld et al. (2023)

Box 3 provides an example, from the piloting of the Guide in Tanzania, of how to convene and facilitate a stakeholder consultation workshop to achieve the goals stated above.

Box 3. Summary of stakeholder consultation workshop conducted in Tanzania

The stakeholder consultation workshop was attended by gender experts from local research institutions, universities, and sectoral ministries with experience working in the cassava, poultry, and fish (*dagaa*) AFSs in Tanzania and facilitated by members of the research team from IITA. During the workshop, participants were divided into breakout groups based on their AFS experience and asked to critically review a draft version of the Gender Norms in Agrifood Systems questionnaire. Each group's main task was to assess the extent to which each norm described in the questionnaire was relevant, and if so, the extent to which the norm constrains women from engaging in and benefiting from the focal AFS. In addition, groups were asked to identify any norm they perceived to be locally relevant but was not included in the questionnaire, as well as to provide suggestions (if any) for improvements to the questionnaire, such as rewording items or adding local examples to improve clarity and respondent understanding. Following completion of the exercise, each group reported their findings in plenary for further discussion and refinement. These findings were then used as the basis for further adaptations to the Gender Norms in Agrifood Systems questionnaire, which are reflected in the final version presented in Annex 1. For a full summary of the Tanzania workshop, see Kitalyi et al. (2023).

Step 2: Questionnaire adaptation

Using the Gender Norms in Agrifood Systems questionnaire (provided in Annex 1) as a template, users of this Guide are encouraged to adapt the questionnaire to fit the target AFS(s) based on insights from the stakeholder workshop. This ensures that the adaptation of the questionnaire is guided by insider (emic) perspectives and not simply imposed based on the outsider (etic) perspectives of the research or development project team. The norm statements included in the questionnaire should, thus, reflect a nuanced understanding of the people, places, and power relations that characterize the AFS.

Adapting the questionnaire may involve adjusting the terminology or phrases used in the statements to describe specific behaviors, removing statements about behaviors that either do not occur or are not relevant in the target AFS(s), or adding statements about behaviors that are not covered by the Gender Norms in Agrifood Systems questionnaire.

In addition, users should ensure that the questionnaire contains all questions expected to be necessary for analysis. The modules to be added will, of course, depend on the project context and research or monitoring and evaluation questions of interest, but at minimum, we recommend including a household roster to collect member-level socio-demographic characteristics (e.g., age, education, marital status, etc.) necessary for assessing intersectional variation in the perception and prevalence of gender norms.

If necessary, the questionnaire should be fully translated into relevant local dialects. Even if the questionnaire will be implemented in English, or another *lingua franca*, it may be useful to provide enumerators with standardized guidance on translating specific key words or phrases into local dialects.

Step 3: Data collection

For data collection purposes, the users of this Guide should develop a strategy for sampling the women/men in each of the different roles (e.g., producers, processors, traders) identified as relevant during the stakeholder consultation workshop (Step 1). That is, identify target groups (women/men, AFS role, age range) for the survey based on for whom and at what level normative change is necessary for

greater gender equality and women's empowerment. The sample design should be informed by insights from the stakeholder workshop. Different approaches may be required to reach different types of actors within a specific AFS or across different AFS (Shively 2011). Box 4 provides an illustrative example from piloting of the Guide in Tanzania of how different sampling strategies can be deployed during the same survey to reach the required numbers of respondents in each of the different roles and AFS.

Box 4. Example sampling strategy from Tanzania pilot survey

The sampling strategy used during piloting of the Guide in Tanzania aimed to obtain a representative sample of the target population in the cassava, poultry, and fish (*dagaa*) AFSs. Differences in the characteristics of individuals engaged in each of the three target AFSs necessitated using different sampling approaches to reach women/men producers, processors, traders and influencers. Specifically, we applied a two-stage cluster probability sampling to select producers (cassava, poultry, and *dagaa*) from a large and relatively uniform target population of the respective AFS. In the first stage, we selected sample villages from a sampling frame of accessible villages using probability proportional to the size of the village population. In the case of *dagaa*, we selected sample fishing camps from a sampling frame of accessible fishing camps in each district. In the second stage, we selected sample cassava and poultry producers from a sampling frame of households producing cassava and poultry compiled from the villages selected in the first stage. In the case of *dagaa*, we selected the sample producers from a sampling frame of accessible fishing camps. In contrast, we applied non-probability sampling to select processors, traders, and influencers from a small and relatively diverse target population of respective actors. Given the lack of a sufficiently significant target population of processing enterprises, we selected processors using quota sampling. We stratified the available processing enterprises and selected sample processors until we reached our quota. We selected traders using convenience sampling. We identified the markets and market days and interviewed the available traders during the market days until we reached the desired sample. We selected influencers using snowballing sampling techniques. We started with a few influencers and continued based on their referrals until we reached the desired sample.

Power calculations should be conducted to determine the sample sizes necessary for making all desired comparisons (e.g., by sex, role, or AFS), or if limited by budget, to determine the minimum detectable effect size.

We encourage all users to pretest the questionnaire with a small number of respondents to identify and resolve any issues prior to the main fieldwork. Additionally, any survey questions that have not been tested before (e.g., norm statements added to the example questionnaire during Step 2) should, ideally, be cognitively tested and refined. Cognitive testing is a qualitative approach to understanding how respondents interpret and respond to survey questions and can be used to identify and resolve potential sources of errors (Willis 2004).

Best practices should be followed when conducting the survey. In most cases, this should involve interviewing respondents in private settings, often at their homes, using same-sex pairings of enumerators and respondents. However, in some cases, the practical constraints of reaching women/men in different roles or working within specific AFS may require diverting from practices (see example in Box 4). As with any human subject research, all protocols should conform to standard ethical guidelines and, ideally, be reviewed and approved by a relevant institutional review board.

Step 4: Data analysis and indicator development

To simplify presentation of findings on the prevalence and restrictiveness of gender norms within the target AFS(s), we recommend an indicator-based approach to analyzing the data. Following this approach, norms are grouped together to form indicators, a cutoff is applied to assess whether the norms related to each indicator are perceived to be restrictive to women, and the resulting indicators are presented as a dashboard reflecting the overall prevalence of gender norms within the target AFS(s). Figure 4 illustrates the indicator construction process, the details of which are provided below.

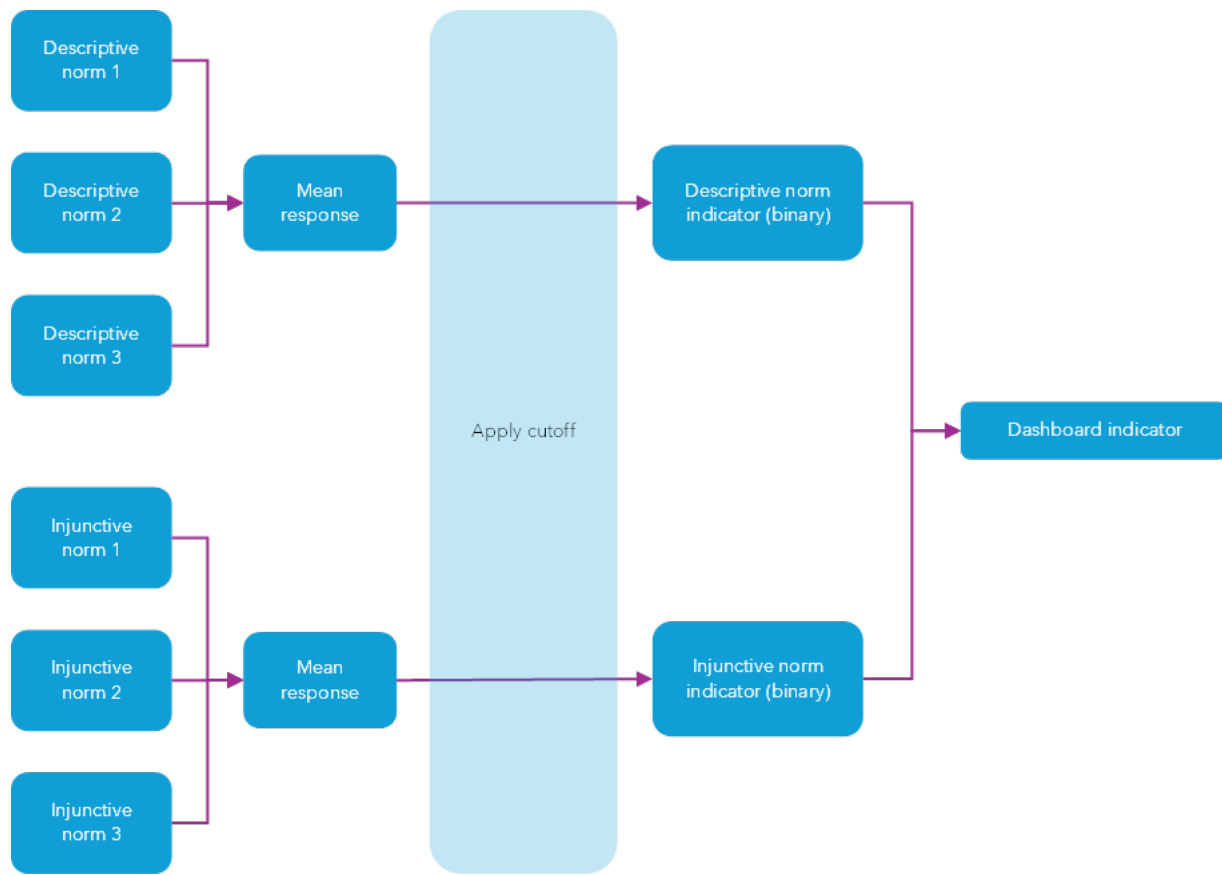


Figure 4. Example of how to construct binary indicators from the gender norm statements included in the questionnaire

Source: The authors

(i) Group together similar norms. Given the multitude of norms measured in the questionnaire, condensing norms into aggregate indicators can ease the presentation and interpretation of the findings. Table 22 shows how we grouped the norms included in the template questionnaire into indicators. Similar counting-based approaches have often been used in the measurement of global poverty and women’s empowerment, in large part because of how easy results based on these approaches are to communicate to technical and non-technical audiences (Atkinson 2019; Alkire and Foster 2011).

During the piloting of the Guide in Tanzania and Nigeria, we utilized exploratory factor analysis (EFA), conducted separately for descriptive and injunctive norms within each of the target AFS(s), in combination with expert review to inform the grouping of norms (Fabrigar & Wegener, 2012). Following

EFA, we sought feedback from an internal group who implemented the various steps in this Guide to assess the face validity of the groupings (i.e., whether they “made sense” from their perspectives). The details of our analytic process are presented in Box 5. Alternative methods could also be used to determine norm groupings, for instance, based entirely on theory or expert consultation. In all cases, however, we recommend maintaining multiple norms per indicator to achieve greater measurement accuracy and greater sensitivity (variance) for assessing sub-group differences and/or assessing impact.

Box 5. Details of the exploratory factor analysis conducted using the pilot surveys

To assess dimensionality, we conducted exploratory factor analysis (EFA) with the pilot data from Tanzania and Nigeria, separately for the injunctive and descriptive norms within each domain using the variance-covariance matrices. We used Scree plots and Eigenvalues to inform our decisions about how many factors to retain and considered both orthogonal and oblique rotation options to obtain a simple structure (each item loaded on a single factor). Items that loaded on multiple factors or <0.4 on each factor were dropped, however, the former case was not common once both rotation options were tried. Following EFA, we sought feedback from an internal group at IITA to assess the face validity of the groupings. The expert review confirmed the validity of all groupings based on the EFA and suggested retaining several items in the template questionnaire, which did not load with other items, as potentially valuable to users in future work and other contexts. These items are included in the template questionnaire with asterisks denoting that they are not used in the construction of dashboard indicators.

(ii) Apply cutoff to create binary indicators. A simple cutoff can be applied to assess whether the norms underlying each indicator are, on average, perceived by respondents to be prevalent within the target AFS. The questionnaire utilizes a common response structure across all items (1=none; 2=few; 3=some; 4=most; 5=everyone), regardless of whether the norm being measured is descriptive (i.e., how many women exhibit a behavior) or injunctive (i.e., how many people agree that a behavior is inappropriate for women). In each instance, we consider a mean response greater than or equal to two (at least “some” women in the community) to indicate that a descriptive or injunctive norm is prevalent. The

indicators, thus, measure at an AFS-level whether a particular descriptive or injunctive norm is, on average, perceived by respondents working in the AFS to be prevalent.

Table 2. Grouping norms statements into indicators

Dashboard indicator	Descriptive/Injunctive	Included norms statements
Women have limited access to banking services	Descriptive	Do not have an account at a bank or with a digital money operator (e.g., OPAY, PALMPAY, etc.), either by themselves or together with someone else?
		Do not have an ATM card connected to a bank account that allows them to withdraw money from the account right away?
	Injunctive	Do not use a mobile money account to deposit money or pay for things using a mobile phone?
		It is inappropriate for women who work in [AFS] to have a bank account, either by themselves or together with someone else.
Women need men's permission to obtain or use a loan or credit	Descriptive	Do not take a loan or get credit without permission from their spouse/partner?
		Do not use a loan or credit they took without discussing/consulting with their spouse/partner?
	Injunctive	It is inappropriate for women who work in [AFS] to take a loan or get credit without permission from their spouse/partner.
		It is inappropriate for women who work in [AFS] to use the loan or credit they took without discussing/consulting with their spouse/partner.
Women do not control agricultural resources	Descriptive	Do not own agricultural land in their own name?
		Do not employ labor for use on agricultural land?
	Injunctive	Do not own other productive assets [farm or processing equipment, motorized vehicles, retail or wholesale stores] in their own name?
		It is inappropriate for women who work in [AFS] to own agricultural land in their own name.
Women need men's permission to sell or purchase productive assets	Descriptive	It is inappropriate for women who work in [AFS] to employ labor for use on agricultural land.
		It is inappropriate for women who work in [AFS] to own productive assets [farm or processing equipment, motorized vehicles, retail or wholesale stores] in their own name.
	Injunctive	Do not sell their productive assets without permission from their spouse/partner?
		Do not purchase productive assets without consulting their spouse/partner?
Women do not own or use smartphones	Descriptive	It is inappropriate for women who work in [AFS] to sell their productive assets without permission from their spouse/partner.
		It is inappropriate for women who work in [AFS] to purchase major productive assets without consulting their spouse/partner.
	Injunctive	Do not own a smart phone?
		Do not regularly use or have access to a smart phone?
Women do not belong to groups	Descriptive	It is inappropriate for women who work with [AFS] to own a smart phone.
		It is inappropriate for women who work with [AFS] to regularly use or have access to a smart phone.
	Injunctive	Are not members of agricultural trade or business organizations or groups?
		Are not members of voluntary civic groups; charitable groups; religious groups; local government groups?
Women do not make decisions in	Descriptive	It is inappropriate for women who work with [AFS] to be a member of agricultural trade or business organizations or groups.
		It is inappropriate for women who work with [AFS] to be a member of voluntary civic groups; charitable groups; religious groups; local government groups.

Dashboard indicator	Descriptive/Injunctive	Included norms statements
groups		Do not decide on behalf of men and other members in voluntary civic groups; charitable groups; local government groups?
	Injunctive	It is inappropriate for women who work with [AFS] to decide on behalf of men and other members in agricultural trade or business organizations or groups. It is inappropriate for women who work with [AFS] to decide on behalf of men and other members in voluntary civic groups; charitable groups; local government groups.
Women do not hold leadership roles in groups	Descriptive	Do not hold leadership roles in agricultural trade or business organizations or groups? Do not hold leadership roles in voluntary civic groups; charitable groups; local government groups?
	Injunctive	It is inappropriate for women who work with [AFS] to hold leadership roles in agricultural trade or business organizations or groups. It is inappropriate for women who work with [AFS] to hold leadership roles in voluntary civic groups; charitable groups; local government groups.
Women need men's permission to interact w/ male agents and participate in agricultural extension	Descriptive	Do not participate in agricultural extension trainings without their spouses/partners' consent? Do not interact with male agricultural extension agents without their spouses/partners' consent?
	Injunctive	It is inappropriate for women who work with [AFS] to participate in agricultural extension trainings without their spouses/partners' consent. It is inappropriate for women who work with [AFS] to interact with male agricultural extension agents without their spouses/partners' consent.
Women do not participate in male-dominated AFS activities	Descriptive	Do not go to cassava fields/poultry sheds/fishing camps without their spouse/partner or a male relative? Do not operate agricultural machinery or mechanized equipment on their own?
	Injunctive	It is inappropriate for women who work with [AFS] to go to cassava fields/poultry sheds/fishing camps without their spouse/partner or a male relative. It is inappropriate for women who work with [AFS] to operate large agricultural machinery or mechanized equipment (e.g., tractors, processing equipment) on their own.
Women do not engage in the marketing of agricultural products	Descriptive	Do not engage in the [AFS] selling or bargaining within their community? Do not engage in the [AFS] wholesale market or bargain in markets outside their community?
	Injunctive	Do not run a commercial [AFS] farm or other cassava-related businesses that generate larger sums of money? It is inappropriate for women who work with [AFS] to engage in the [AFS] selling or bargaining within their community? It is inappropriate for women who work with [AFS] to engage in the [AFS] wholesale market or bargain in markets outside their community.
Women need men's permission to leave the house and must tolerate violence from the spouse/partner	Descriptive	Do not leave the house without permission from their spouse/partner? Tolerate violence from their spouse/partner?
	Injunctive	It is inappropriate for women to leave the house without permission from their spouse/partner. It is inappropriate for women not to tolerate violence from their spouse/partner.
Women do not control income or make expenditure decisions	Descriptive	Do not spend their wages/income on personal items? Do not make their own decisions about major household expenditures
	Injunctive	It is inappropriate for women to spend their wages/income on personal items. It is inappropriate for women to make decisions on their own about major household expenditures.
Women are responsible for domestic and childcare duties	Descriptive	Carry out most of the routine chores within the household? (e.g., cooking, cleaning, washing clothes). Perform most of the childcare duties within the household? (e.g., changing diapers, giving the kids a bath, feeding, etc.).

Dashboard indicator	Descriptive/Injunctive	Included norms statements
	Injunctive	It is inappropriate for women <i>not</i> to carry out most of the routine chores within the household (e.g., cooking, cleaning, washing clothes). It is inappropriate for women <i>not</i> to perform most of the childcare duties within the household (e.g., changing diapers, giving the kids a bath, feeding, etc.).

Source: The authors

(iii) Construct indicator dashboard. To construct the dashboard, each pair of descriptive and injunctive norm indicators can be combined into a single, categorical indicator, coded as follows: neither the descriptive or injunctive norms are prevalent (=0), only the descriptive norm or injunctive norm is prevalent (=1), or both the descriptive and injunctive norms are prevalent (=2). The assigned values reflect how restrictive a norm is within the target AFS, ranging from 0 (least restrictive) to 2 (most restrictive). This scheme codifies the theory that a norm is strongest if it is perceived to be prevalent both descriptively and injunctively (FAO, IFAD, and WFP 2022).

Figure 5 shows the indicator dashboards based on the pilot results for the cassava AFS in Tanzania. In this example, the gender norms perceived to be the most restrictive (shown in red) relate to women’s inability to: (i) obtain or use a loan or credit without the permission of their spouse/partner, (ii) sell or purchase productive assets without the permission of their spouse/partner, (iii) interact with male extension agents and participate in agricultural extension training, and (iv) leave their house and the expectation that they tolerate violence from their spouse/partner. The gender norm perceived to be the least restrictive (shown in blue) relates to women not belonging to groups. For the remaining gender norms (shown in yellow), only the injunctive or descriptive norm were perceived to be restrictive. Hence, the perceived restrictiveness of these gender norms falls somewhere in between the two extremes.

Note that including the indicators in individual-level analysis or impact evaluation requires deviating slightly from the construction outlined above. In such cases, rather than assessing the prevalence of each norm at an AFS-level, individuals’ perceptions of norms should be assessed based on individual-level mean responses across the norms included in each indicator. Individual-level mean responses greater than or equal to two (at least “some” women in the community) should be coded as

perceiving (=1) or not perceiving (=0) a descriptive or injunctive norm as prevalent within the community.

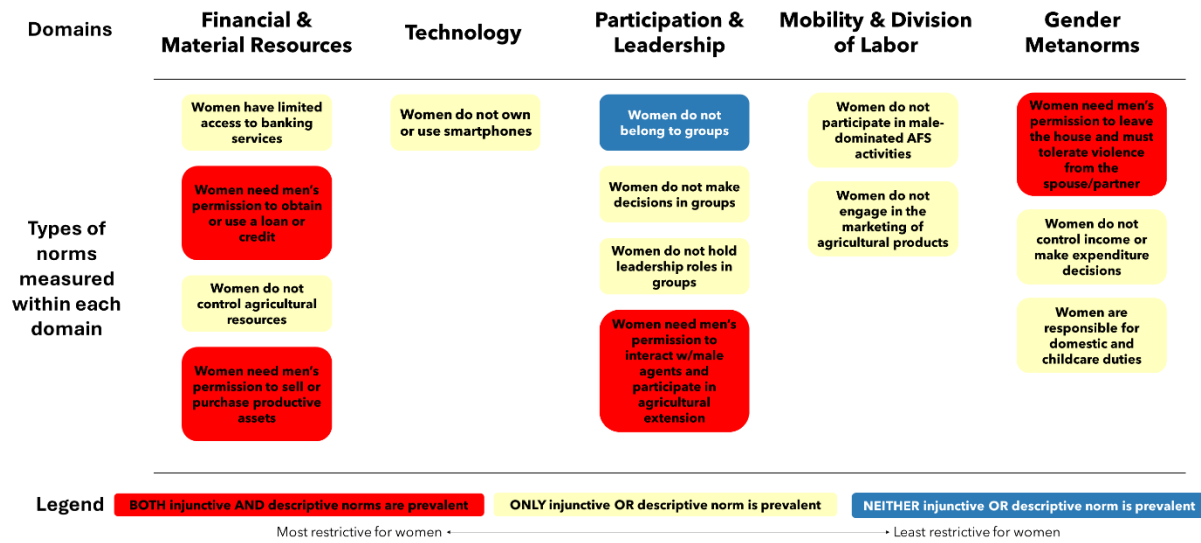


Figure 5. Example gender norms indicator dashboard for cassava AFS in Tanzania based on pilot survey

Source: The authors

Step 5: Stakeholder dissemination workshop

The final step of the process is to share the findings on the prevalence of gender norms within the target AFSs with relevant stakeholders to: (i) increase understanding of the normative constraints that impact women's ability to build economic resilience within the target AFS and (ii) identify leverage points and levers to inform the design of gender transformative interventions at different institutional levels within the target AFS(s). Presented in detail by Mwakanyamale et al. (2024), the leverage point and levers framework is useful for identifying potential entry points and actions that could be pursued to reduce normative constraints on women's ability to build economic resilience.

As with the stakeholder consultation workshop (Step 1), we recommend convening an in-person workshop; although other formats, such as a virtual workshop or one-on-one discussions are also feasible. In addition, while it is not required that this group comprise the same participants as the group convened for the stakeholder consultation workshop (Step 1), the impact of the dissemination workshop may be

magnified for participants who attended the earlier workshop. Hence, we recommend as many stakeholders as possible participate in both workshops.

The starting point for discussions during the dissemination workshop should be the gender norms indicator dashboard, generated in the previous step, which summarizes the prevalence of gender norms within the target AFS. Box 6 provides an example, from piloting in Tanzania, of how to convene and facilitate the dissemination workshop to achieve the goals stated above.

Box 6. Summary of stakeholder dissemination workshop in Tanzania

The stakeholder dissemination workshop occurred in Tanzania in November 2023 and was facilitated by members of the research team from IITA. Participants included government officials, NGO representatives, researchers from national agriculture institutes, and producer/processor organizations with expertise and decision-making powers to inform and influence work activities within their organizations, many of whom also participated in the stakeholder consultation workshop conducted earlier in 2023 in Tanzania. The workshop began with a presentation on gender norms in the cassava, poultry, and *dagaa* AFSs in Tanzania, based on evidence from the piloting of the Gender Norms in Agrifood Systems questionnaire, as well as from the global evidence synthesis presented in Rietveld et al. (2023) and qualitative evidence on gender norms in the target AFSs (Achandi et al. 2023). Stakeholders were also given a primer on the leverage points and levers framework. Following these presentations, stakeholders were divided into groups based on their AFS experience and tasked with identifying potential leverage points (where to intervene) and levers (how to intervene) for addressing normative constraints on women's capacities to build economic resilience. Participants were asked to consider leverage points and levers aimed at deeper level changes in gender norms, as well as shallower leverage points and levers based on their current project activities. Following completion of the exercise, each group reported their findings in plenary for further discussion and refinement. The leverage points and levers identified during the workshop were recorded and used to fuel further conversations with several partners about potential implementation in future iterations of this work, as described in the final section of this paper. For a full summary of the workshop, see Mwakanyamale et al. (2024).

4. APPLYING THE RESULTS

The leverage points and levers identified by applying the Guide within a target AFS(s), as well as the quantitative measures developed as part of this process, can be used in multiple ways, including but not limited to intervention design and project monitoring and evaluation.

The findings on the prevalence of gender norms (presented in the indicator dashboard) and leverage points and levers identified during the stakeholder dissemination workshop (Step 5) are useful starting points for identifying entry points and actions that could be pursued to reduce normative constraints on women's capacities to build economic resilience. For example, following the stakeholder dissemination workshop in Tanzania, members of the research team met with several of the stakeholders who had participated in the workshop and began designing specific gender transformative interventions based on the results presented at the workshop. Box 7 provides details on the process used to co-design one of these interventions with a partner in Tanzania.

Box 7. Example of a gender transformative intervention that was designed based on leverage points and levers identified during the Tanzania stakeholder dissemination workshop

After the dissemination workshop, the next step involved selecting partner organizations to collaborate on designing and piloting gender transformative interventions using the leverage points and levers identified by stakeholders during the workshop. This selection process was guided by a set of developed criteria. The goal was to identify suitable partners with existing activities (projects) into which gender transformative interventions could be integrated.

Among the evaluated organizations, the Kolping Society of Tanzania (KST) emerged as one of the two selected partners in Tanzania. Following their selection, we scheduled a meeting for initial discussions to introduce the work, secure buy-in, and agree on the scope of work. This was followed by the development and signing of a sub-contract agreement. When the sub-contract agreement was in place, we convened subsequent workshops for co-designing the interventions.

Figure 6 below illustrates an example of the gender transformative intervention related to land ownership, developed through the collaboration with KST using inputs from the dissemination workshop. The diagram starts with the inequitable norm: *It is inappropriate for*

women who work in cassava to own agricultural land. This was one of the norms found to be especially restrictive/prevalent by the pilot study in Tanzania (Seymour et al. 2023). During the dissemination workshop, stakeholders identified leverage points and levers at different institutional levels to address the norm that restricts women from owning agricultural land. For example, at the state level, stakeholders recommended *policies and programs* as leverage points and suggested promoting *affirmative action programs* by the government to improve women's access to and control over land (and other productive assets) as a lever. Leverage points and levers were also identified at the community and household levels.

Informed by these leverage points and levers, we co-designed research activities and outputs with KST along with detailing how to implement the gender transformative intervention with other stakeholders in the agrifood system. These included gender transformative radio programs aimed at addressing the norm at the state level, and community and group dialogue sessions targeting the norm at the community and household levels. The radio programs featuring land experts, government officials, traditional leaders, and couples with success stories will focus on identifying solutions to increase women's land ownership. In addition, the radio programs will be incorporated into community and group dialogue sessions with cassava farmers and other stakeholders to facilitate critical reflection and action planning and implementation, which is theorized to result in changes in perceptions and behaviors and opportunities to increase women's land ownership.

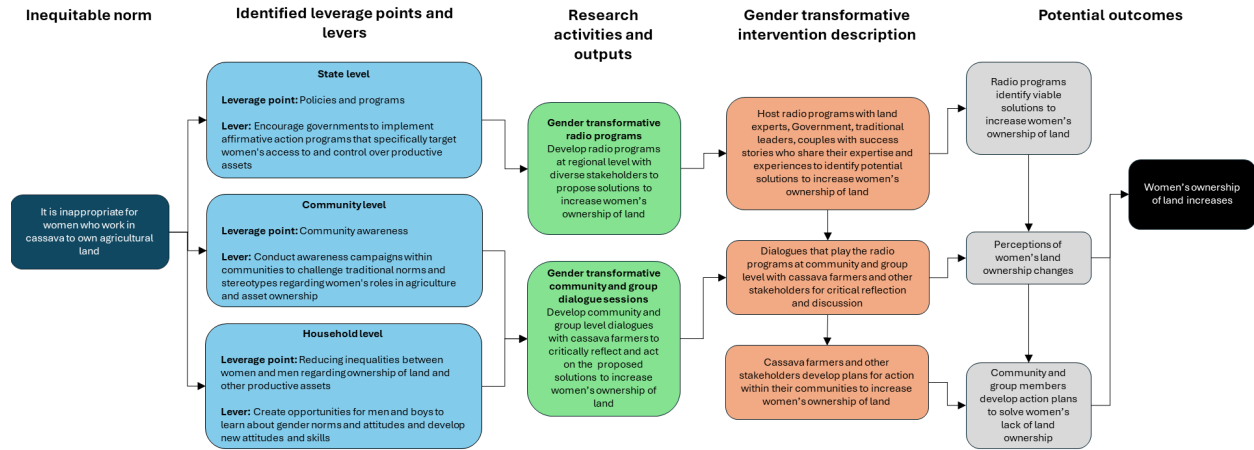


Figure 6. Example of a gender transformative intervention that was co-designed with partner using the leverage points and levers identified during the Tanzania stakeholder dissemination workshop

Source: The authors

Moving beyond project design, the descriptive and injunctive norms associated with the identified leverage points and levers may be included in project baseline and endline surveys, and assuming the existence of a rigorous impact evaluation design, used to assess gender transformative change in the targeted norms. In this scenario, we recommend assessing impacts primarily in terms of the constructed indicators, rather than the associated norms, to achieve greater measurement accuracy and greater sensitivity (variance) for assessing impact.

Given limited resources, users may want to consider only including in the endline survey for those indicators (norms) that were perceived as prevalent at baseline and/or are viewed as susceptible to change due to the intervention. Unless there is strong rationale for expecting backlash, it is unlikely that a norm perceived as non-restrictive (non-prevalent) at baseline would become restrictive (prevalent) at endline.

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ANNEX 1: GENDER NORMS IN AGRIFOOD SYSTEMS QUESTIONNAIRE

MODULE 1: Financial and Material Resources

INTERVIEWER TO SAY: “Now I would like to ask you some questions about how common or normal you believe certain ideas are regarding financial and material resources among people working in the cassava value chain in your community or who you support via your [network / association / cooperative / ministry / organization].”

Financial Resources

Of the women who you are aware of who are working with cassava in this community or who you support via your [network / association / cooperative / ministry / organization], how many do you think...		None	Few	Some	Most	Everyone
Descriptive Norms		0	1	2	3	4
2.1	Control their own earnings or savings from any source?					
2.2	Have an account at a bank or with a digital money operator (e.g., OPAY, PALMPAY, etc.), either by themselves or together with someone else?					
2.3	Have an ATM card connected to a bank account that allows them to withdraw money from the account right away?					
2.4	Took a loan or got credit without permission from their spouse/partner?					
2.5	Used a loan or credit they took without discussing/consulting with their spouse/partner?					
2.6	Used a mobile money account to deposit money or pay for things using a mobile phone?					
How many people in your community [network / association / cooperative / ministry / organization] do you think would agree with the following statements?		None	Few	Some	Most	Everyone
Injunctive Norms		0	1	2	3	4
2.7i	It is inappropriate for women who work in cassava to control their own earnings or savings from any source.					
2.8i	It is inappropriate for women who work in cassava to have a bank account, either by themselves or together with someone else.					
2.9i	It is inappropriate for women who work in cassava to have an ATM card connected to a bank account that allows them to withdraw money from the account right away.					
2.10i	It is inappropriate for women who work in cassava to take a loan or get credit without permission from their spouse/partner.					
2.11i	It is inappropriate for women who work in cassava to use the loan or credit they took without discussing/consulting with their spouse/partner.					
2.12i	It is inappropriate for women who work in cassava to use a mobile money account to deposit money or pay for things using a mobile phone.					

Material Resources

Of the women who you are aware of who work in cassava in this community or who you support via your [network / association / cooperative / ministry / organization], how many do you think...		None	Few	Some	Most	Everyone
Descriptive Norms		0	1	2	3	4
2.13	Own agricultural land in their own name?					

2.14	Employ labor for use on agricultural land?					
2.15	Own other productive assets [farm or processing equipment, motorized vehicles, retail or wholesale stores] in their own name?					
2.16	Sell their productive assets without permission from their spouse/partner?					
2.17	Purchase productive assets without consulting their spouse/partner?					
How many people in your [community/ network / association / cooperative / ministry / organization] do you think would agree with the following statements?		None	Few	Some	Most	Everyone
Injunctive Norms		0	1	2	3	4
2.18i	It is inappropriate for women who work in cassava to own agricultural land in their own name.					
2.19i	It is inappropriate for women who work in cassava to employ labor for use on agricultural land.					
2.20i	It is inappropriate for women who work in cassava to own productive assets [farm or processing equipment, motorized vehicles, retail or wholesale stores] in their own name.					
2.21i	It is inappropriate for women who work in cassava to sell their productive assets without permission from their spouse/partner.					
2.22i	It is in appropriate for women who work in cassava to purchase major productive assets without consulting their spouse/partner.					

MODULE 2: Technology

INTERVIEWER TO SAY: “Now I would like to ask you some questions about how common or normal you believe certain ideas are regarding the use of technologies among people working in the cassava value chain in your community or who you support via your [network / association / cooperative / ministry / organization].”

Of the women who you are aware of who work in cassava in this community or who you support via your [network / association / cooperative / ministry / organization], how many do you think...		None	Few	Some	Most	Everyone
Descriptive Norms		0	1	2	3	4
3.1	Own a smart phone?					
3.2	Regularly use or have access to a smart phone?					
3.3	Spend time during the day or working hours sitting and listening to the radio, watching television, or using a mobile phone?					
3.4	Use or adopt cassava-based technologies (new varieties, new processing technologies, new marketing techniques) when they are first introduced?					
How many people in your [community/ network / association / cooperative / ministry / organization] do you think would agree with the following statements?		None	Few	Some	Most	Everyone
Injunctive Norms		0	1	2	3	4
3.5i	It is inappropriate for women who work with cassava to own a smart phone.					
3.6i	It is inappropriate for women who work with cassava to regularly use or have access to a smart phone.					
3.7i	It is inappropriate for women who work with cassava to spend time during the day or working hours sitting and listening to the radio or watching television or using mobile phone.					
3.8i	It is inappropriate for women who work with cassava to use or adopt new cassava-based technologies when they are first introduced.					

MODULE 3: Participation and Leadership

INTERVIEWER TO SAY: “Now I would like to ask you some questions about how common or normal you believe certain ideas are regarding leadership and participation in different kinds of groups and agricultural extension trainings among people working in the cassava value chain in your community or who you support via your [network / association / cooperative / ministry / organization].”

Of the women who you are aware of who work with cassava in this community or who you support via your [network / association / cooperative / ministry / organization], how many do you think...		None	Few	Some	Most	Everyone
Descriptive Norms		0	1	2	3	4
4.1	Are members of agricultural trade or business organizations or groups? [agriculture or producer’s group or network; cassava growers’ association, cassava sellers’ association; credit or microfinance group; mutual help or insurance group; trade and business association]					
4.2	Are members of voluntary civic groups; charitable groups; religious groups; local government groups [mutual/self-help groups, cooperative society,, other social groups]?					
4.3	Decide on behalf of men and other members in agricultural trade or business organizations or groups?					
4.4	Decide on behalf of men and other members in voluntary civic groups; charitable groups; local government groups?					
4.5	Decide on behalf of men and other members in religious groups?					
4.6	Hold leadership roles in agricultural trade or business organizations or groups?					
4.7	Hold leadership roles in voluntary civic groups; charitable groups; local government groups?					
4.8	Hold leadership roles in religious groups?					
4.9	Participate in agricultural extension trainings without their spouses/partners’ consent?					
4.10	Interact with male agricultural extension agents without their spouses/partners’ consent?					
How many people in your [community/ network / association / cooperative / ministry / organization] do you think would agree with the following statements?		None	Few	Some	Most	Everyone
Injunctive Norms		0	1	2	3	4
4.11i	It is inappropriate for women who work with cassava to be a member of agricultural trade or business organizations or groups [agriculture or producer’s group; water user’s group; credit or microfinance group; mutual help or insurance group; trade and business association].					
4.12i	It is inappropriate for women who work with cassava to be a member of voluntary civic groups; charitable groups; religious groups; local government groups [mutual/self-help groups, cooperative society,, other social groups].					
4.13i	It is inappropriate for women who work with cassava to decide on behalf of men and other members in agricultural trade or business organizations or groups.					
4.14i	It is inappropriate for women who work with cassava to decide on behalf of men and other members in voluntary civic groups; charitable groups; local government groups.					
4.15i	It is inappropriate for women who work with cassava to decide on behalf of men and other members in religious groups.					

4.16i	It is inappropriate for women who work with cassava to hold leadership roles in agricultural trade or business organizations or groups.					
4.17i	It is inappropriate for women who work with cassava to hold leadership roles in voluntary civic groups; charitable groups; local government groups.					
4.18i	It is inappropriate for women who work with cassava to hold leadership roles in religious groups.					
4.19i	It is inappropriate for women who work with cassava to participate in agricultural extension trainings without their spouses/partners' consent.					
4.20i	It is inappropriate for women who work with cassava to interact with male agricultural extension agents without their spouses/partners' consent.					

MODULE 4: Mobility and Division of Labor

INTERVIEWER TO SAY: "Now I would like to ask you some questions about how common or normal you believe certain ideas are about different types of jobs among people in the cassava value chain in your community or who you support via your [network / association / cooperative / ministry / organization]."

Mobility and Division of Labor

Of the women who you are aware of who work with cassava in this community or who you support via your [network / association / cooperative / ministry / organization], how many do you think...		None	Few	Some	Most	Everyone
Descriptive Norms		0	1	2	3	4
5.1	Go to cassava fields without their spouse/partner or a male relative?					
5.2	Operate agricultural machinery or mechanized equipment on their own?					
5.3	Conduct all cassava activities that involve bending, such as washing and peeling cassava?					
5.4	Engage in the cassava selling or bargaining within their community?					
5.5	Engage in the cassava wholesale market or bargain in markets outside their community?					
5.6	Run a commercial cassava farm or other cassava-related businesses that generate larger sums of money?					
How many people in your [community/ network / association / cooperative / ministry / organization] do you think would agree with the following statements?		None	Few	Some	Most	Everyone
Injunctive Norms		0	1	2	3	4
5.7i	It is inappropriate for women who work with cassava to go to cassava fields without their spouse/partner or a male relative.					
5.8i	It is inappropriate for women who work with cassava to operate large agricultural machinery or mechanized equipment (e.g., tractors, processing equipment) on their own.					
5.9i	It is inappropriate for women who work with cassava to do all cassava activities that involve bending, such as washing and peeling cassava.					
5.10i	It is inappropriate for women who work with cassava to transport fresh or processed cassava for sale outside their community.					

5.11i	It is inappropriate for women who work with cassava to engage in the cassava wholesale market or bargain in markets outside their community.					
5.12i	It is inappropriate for women who work with cassava to run a commercial cassava farm or other cassava-related businesses that generate larger sums of money.					

MODULE 5: Gender Meta-Norms

INTERVIEWER TO SAY: “Now I would like to ask you some questions about how common or normal you believe certain ideas are about people in your broader community or social network, **not just about those people working in the cassava value chain.**”

Bodily Autonomy and Freedom from Violence

Of the women who you know in your community or social network, how many do you think...		None	Few	Some	Most	Everyone
Descriptive Norms		0	1	2	3	4
6.1	Leave the house without permission from their spouse/partner?					
6.2	Tolerate violence from their spouse/partner?					
6.3	Have the final say in determining how many children they should have?					
How many people in your broader community or social network do you think would agree with the following statements?		None	Few	Some	Most	Everyone
Injunctive Norms		0	1	2	3	4
6.4i	It is inappropriate for women to leave the house without permission from their spouse/partner.					
6.5i	It is inappropriate for women to tolerate violence from their spouse/partner.					
6.6i	It is inappropriate for women to have the final say in determining whether to have another child.					

Decision-Making and Control of Resources

Of the women who you know in your community or social network, how many do you think...		None	Few	Some	Most	Everyone
Descriptive Norms		0	1	2	3	4
6.7	Spend their wages/income on personal items?					
6.8	Make their own decisions about major household expenditures (E.g. Paying for children’s education in private schools, purchase of items/assets of larger values, etc) if they want to?					
6.9	Own or have control over their spouse’s/partner’s assets after their death?					
How many people in your broader community or social network do you think would agree with the following statements?		None	Few	Some	Most	Everyone
Injunctive Norms		0	1	2	3	4
6.10i	It is inappropriate for women to spend their wages/income on personal items.					
6.11i	It is inappropriate for women to make decisions on their own about major household expenditures.					
6.12i	It is inappropriate for women to own or have control over their spouse’s/partner’s assets after their death.					

Division of Labor

Of the women who you know in your community or social network, how many do you think...		None	Few	Some	Most	Everyone
Descriptive Norms		0	1	2	3	4

6.13	Carry out most of the routine chores within the household? (e.g., cooking, cleaning, washing clothes).					
6.14	Perform most of the childcare duties within the household? (e.g., changing diapers, giving the kids a bath, feeding, etc.).					
6.15	Spend most of their time on paid work outside the household?					
How many people in your broader community or social network do you think would agree with the following statements?		None	Few	Some	Most	Everyone
Injunctive Norms		0	1	2	3	4
6.16i	It is inappropriate for MEN to carry out most of the routine chores within the household (e.g., cooking, cleaning, washing clothes).					
6.17i	It is inappropriate for MEN to perform most of the childcare duties within the household (e.g., changing diapers, giving the kids a bath, feeding, etc.).					
6.18i	It is inappropriate for women to spend most of their time on paid work outside the household.					

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