CGIAR INITIATIVE ON Gender Equality

Gendered social norms in agrifood systems

A conceptual framework

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List of acronyms

AFS	agrifood system
ALIGN	Advancing Learning and Innovation on Gender Norms Platform
CSA	climate-smart agriculture
FAO	Food and Agriculture Organization of the United Nations
GTA	gender transformative approach
HER+	Harnessing Gender and Social Equality for Resilience in Agrifood Systems Initiative
IFAD	International Fund for Agricultural Development
IRH	Institute for Reproductive Health, Georgetown University
JP	Joint Programme
KIT	Royal Tropical Institute
OECD	Organisation for Economic Co-operation and Development
SNAP	Social Norms Analysis Plot
SNET	Social Norms Exploration Tool
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WEAI	Women's Empowerment in Agriculture Index
WFP	World Food Programme

1. Introduction[1]

Social norms are widely accepted, informal (Harper and Marcus, 2018), typically unspoken and unwritten rules of acceptable, appropriate, and obligatory behavior (Cialdini et al., 1990; Cislaghi and Heise, 2018; Cislaghi et al., 2018, 2019; Social Norms Learning Collaborative, 2021. They are often implicit (Social Norms Learning Collaborative, 2021), to the point where people internalize, accept, and follow them without critical thought (Cislaghi et al., 2019). Social norms are strongly linked to, but different from, behavior (Mackie et al., 2015): they govern a behavior but are not the behavior itself (Cislaghi et al., 2019). As such, they are shared "behavioral rules" (Cislaghi and Heise, 2016) or shared expectations held by a set of people as to how people should behave (Marcus et al., 2015; FAO et al., 2022): *"… a perception of where a social group is or where the social group ought to be on some dimension of attitude or behavior"* (Paluck et al., 2010). Norms exemplify what is typical, normal, or appropriate within a group or particular social context and are accepted and followed by the majority of the group (Cislaghi and Heise, 2020; Harper et al., 2020).

What makes social norms distinct from attitudes is that they are held by social groups (Marcus and Harper, 2018) and address the beliefs and rules of the larger community or group of people (Social Norms Learning Collaborative, 2021. They represent the *"will of the group"* (ibid.). While social norms are expressed and reproduced by individuals, they are definitions of appropriate social conduct and behavior reflecting collective ideals, beliefs, and rules in specific groups or social contexts (Edström et al., 2015; Pearse and Connell, 2016; Marcus and Harper, 2018; McDougall et al., 2021). They are "interdependent" expressions of shared values or expectations about what people (who matter to the person) think and how they should act (Marcus and Harper, 2014; Mackie et al., 2015). Social norms comprise beliefs about what other people do and approve of (Cislaghi et al., 2018), and perceptions as to what others expect one should do (Stefanik and Hwang, 2017). They *"comprise what we do, what we think others do, and what we believe others think we should do"* (Suruchi et al., 2020).

While increasingly recognized as critical influences, gendered social norms are relatively unexplored and not yet well understood in agrifood system (AFS) research and practice. The need to integrate gender norms into the planning, targeting, and scaling strategies of agricultural innovation, moving beyond the predominant and assumption-laden technical-technological focus, is becoming more widely acknowledged yet there is a methodological gap when it comes to assessing gender norms across contexts (Lopez et al., 2022). A standard set of validated indicators to measure gendered social norms in AFS does not yet exist:[2] *"measurement of shifts in social norms is relatively new to programming that targets food security and nutrition"* (FAO et al., 2022).

This report contributes to addressing this lacuna by comprehensively reviewing literature at the intersection between gendered social norms and AFS. We develop a conceptual framework to guide the measurement of normative change, highlighting the most relevant norm domains to measure in AFS at different socioecological levels. This report has been prepared under the auspices of a CGIAR initiative on norm measurement in AFS (see Box 1).

1. The authors would like to acknowledge and thank Felice Davids and Anne Karam (both Junior Advisors at KIT Royal Tropical Institute) for their contributions to the literature scan and coding in NVivo.
2. There are, however, a number of studies and programs focused on measuring norms and specific aspects of gender equality or gender relations in AFS. The Women's Empowerment in Agriculture Index (WEAI) (Alkire et al., 2013) and its iterations (e.g. WEFI for fish or WELI for livestock), which measure women's empowerment, is one example (see the WEAI Resource Center for details at https://weai.ifpri.info/). A large-scale global comparative qualitative research program on gender norms in agriculture, GENNOVATE (https://gennovate.org/), is another. Broadening beyond AFS, however, a number of key tools measuring social and gender norms are being used, for example the Attitudes, Practices and Social Norms survey, the United Nations Development Programme (UNDP) Gender and Social Norms Index, the Social Institutions and Gender Index developed by the Organisation for Economic Co-operation and Development (OECD), CARE's Social Norms Analysis Plot (SNAP), the Social Norms Exploration Tool (SNET) developed by the Institute for Reproductive Health, and the Gender Equitable Men Scale developed by Instituto Promundo. Note: both SNAP and SNET are qualitative tools but we include them because their approaches offer insights when it comes to a conceptual framework for measuring norms (both qualitatively and quantitatively).

A street vendor on the street of Hanoi, the capital of Vietnam. Photo: © ILRI/Vu Ngoc Dung.

Box 1: Towards a multidimensional social norms in agrifood systems index

A planned output of the *Harnessing Gender and Social Equality for Resilience in Agrifood Systems* (HER+) Initiative of One CGIAR is an index to measure multidimensional social norms in AFS. This is part of a body of work to reduce normative constraints that limit women's economic resilience to climate change challenges. The aim of the index is to systematically measure the underlying social and gender norms that hinder women's economic resilience in the context of a changing climate – for example restrictive norms that block (differentiated women and men's) access to financial services and entrepreneurship opportunities, thus increasing vulnerability to climate change impacts. Likewise, it will measure enabling norms that foster economic resilience. The index should be broadly applicable across different AFS contexts to inform the design of gender transformative approaches (GTAs). It will support AFS stakeholders in identifying leverage points to sustainably reduce normative constraints that limit women's (and men's) capacities to build economic resilience to climate change challenges. When applied longitudinally, the index will track progress on normative change towards greater social and gender equality.

Section 2 presents the methods used in the literature review to inform the development of the conceptual framework. Section 3 positions gendered social norms within AFS, articulating why they matter there. Section 4 delves into the literature related to social and gender norms to understand the dynamics of how norms develop, are maintained, reproduce, fade, and transform over time and how they play out across socioecological levels to inform our understanding of those dynamics in AFS in particular. Section 5 maps the prevalence of literature on gendered social norms and AFS related to the different norm domains, socioecological levels, and components of AFS, providing examples and making some observations. Section 6 brings these pieces together in a conceptual framework for understanding the dynamics of norms in AFS. Section 7 concludes the report with recommendations from the literature review for measuring gendered social norms in AFS.

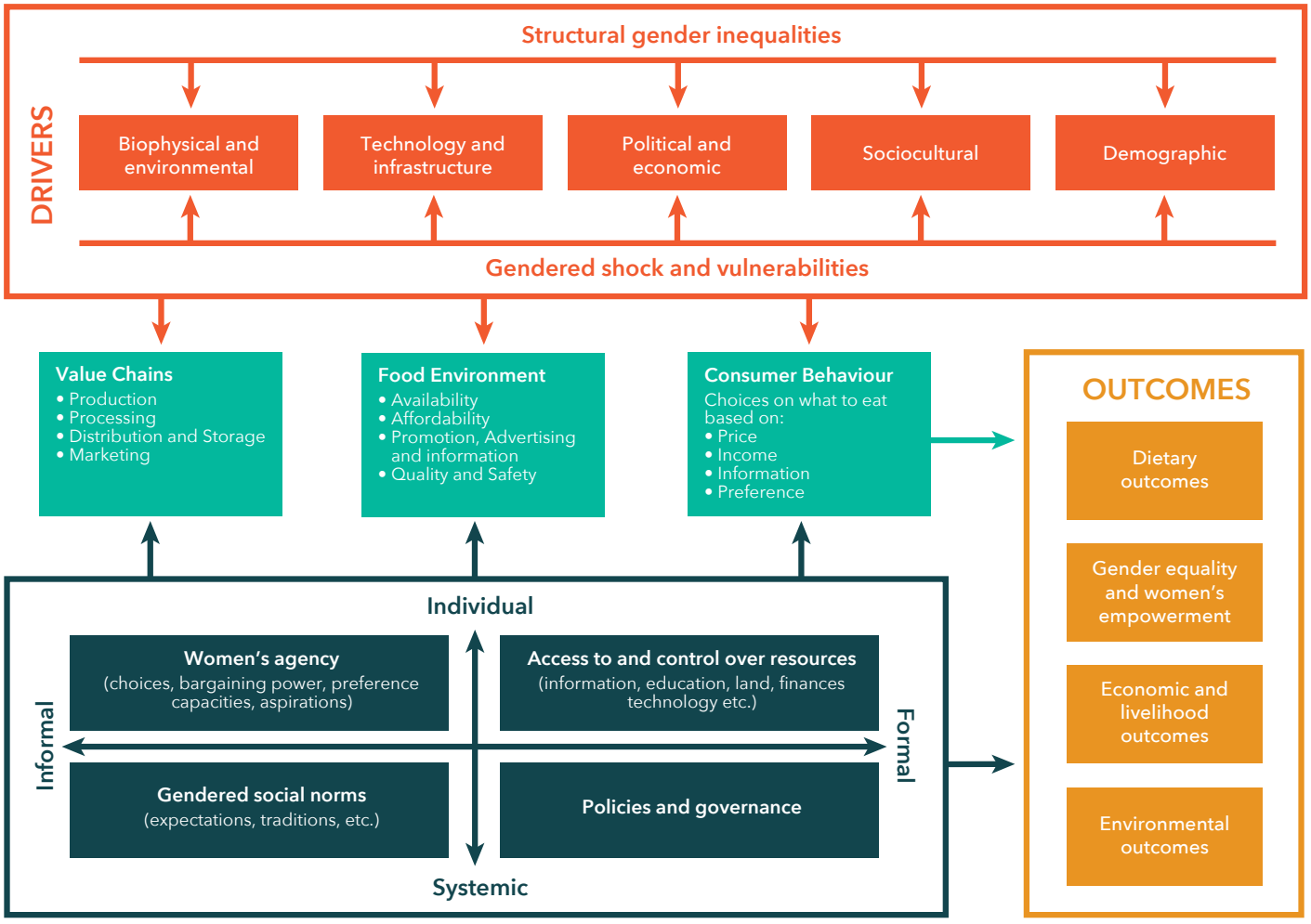
> "Measurement of shifts in social norms is relatively new to programming that targets food security and nutrition."
>
> (FAO et al., 2022)

2. Methods

The process for the critical literature review undertaken for this report and the development of a conceptual framework for understanding gendered social norms in AFS was iterative. The literature review pulled together key elements on AFS, gender in agrifood chains, and gender/social norms more broadly, which informed the conceptual framework. At the same time, the emerging conceptual framework informed the direction of the critical literature review. Starting points for both the conceptual framework and the literature review were three foundational layers.

A first layer is the Gendered Agrifood System Framework (Njuki et al., 2021), which is widely used to conceptualize gender dynamics in AFS (see Figure 1). This framework was developed to integrate gender into the AFS framework developed by de Brauw et al. (2019).

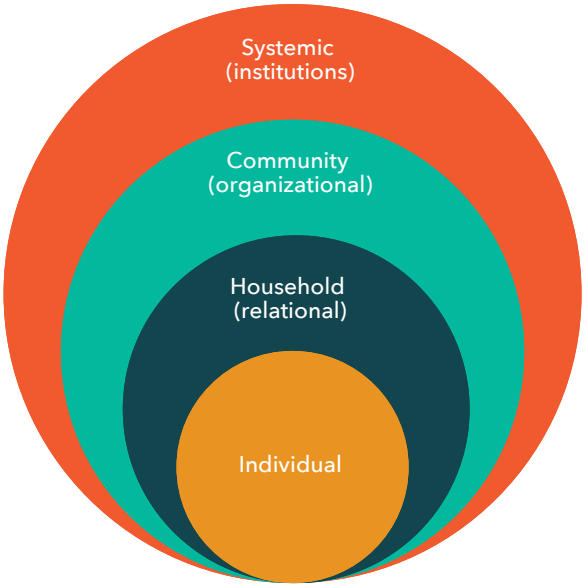
Figure 1: Gendered food systems (Njuki et al., 2021)



This framework maps the gender dimensions of AFS along two axes – formal to informal and individual to systemic (Njuki et al., 2021). We use this as a reference point, elaborating most comprehensively on "gendered social norms" (the informal and systemic quadrant). However, the conceptual framework for the multidimensional social norms index that we are developing will also move along the individual axis and delve into policies and governance (the formal and systemic quadrant) to some extent. The context for all of this work is the AFS as a whole and, thus, the conceptual framework plugs into the "value chains" and, to a lesser extent, the "food environment" and "consumer behavior" components also. The literature scan search words were drawn, in part, from this framework.

A second foundational layer is the socioecological model used by many authors[3] to depict spheres of influence over human behavior. Socioecological models have been used for decades[4] to illustrate the complexity and multifaceted nature of human development. While the spheres are denoted different depending on the issue being addressed, the basic model is **individual**; **relational** – peers, family, household; **community** – neighbors, social services, organizations; and **societal** – institutions, policies. For the literature scan and later the conceptual framework, we distil four interrelated levels for examining gender norms in AFS – namely, individual, household (relational), community (organizational), and systemic (institutional).

Figure 2: Socioecological model in relation to gendered social norms in agrifood systems



These socioecological levels are discussed both in relation to gender social norms more broadly, as well as specifically in relation to the literature included in the review.

A third influential foundational layer to this work is the recent work undertaken by the Joint Programme (JP) on Gender Transformative Approaches of the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD), and the World Food Programme (WFP) (2022). Importantly, the indicators that are distinguished strongly influenced the norm domains we brought into the conceptual framework.

Knowledge, skills and access to information	Increase in knowledge and skills (literacy, financial literacy, soft skills and technical knowledge) and access to information
Productive autonomy	Access to and control over natural productive resources and services, including land, water, livestock, fisheries, forestry, resources, seeds, fertilizers, tools and technology, including information and communication technologies (infrastructure and advisory/extension services).
Economic autonomy (income)	Access to formal employment and a decent wage, means of earning an independent personal income, markets and value chains, financial services, social protection, addressing informal employment. Ownership of and control over assets (financial, housing, etc.)
Agency	ability to make own choices in act upon them including self-esteem, self-efficacy, aspiration.
Division of labour (linked to economic self-sufficiency)	Recognition reduction and redistration of unpaid care and domestic work
Power, influence and decisions making	Equal participation in decision making at household level e.g. over mobility economic activity, income, production and nutrition, as well as in the community and other public spheres of regional and national levels
Participation, representation and leadership	Capacity to organise equal representation and leadership informal and informal bodies, and organizations and institutions at community, regional and national levels. Capacity to negotiate, lead, express opinions and voice demands.
Reproductive freedom	Decision making of family planning, contraception, marriage, partner choice, and marrying age
Freedom from violence and coercion	Freedom from living with fear; physical, sexual and/or, emotional violence and harmful practices; and restrictions on mobility.

Source: FAO et al. (2022)

3. See, for example, the Centers for Disease Control and Prevention: https://www.cdc.gov/violenceprevention/about/social-ecologicalmodel.html
4. Originally used post-World War I by sociologists, socioecological models were further developed in the 1970s by Urie Bronfenbrener. They have been used particularly in health research and interventions. Most recently, they have been adapted to explore opportunities for gender-transformative programming (see UNFPA, 2020).

In the AFS and gender literature, norms came up in different ways and as a key aspect being addressed through GTAs. Using the FAO JP guidance, we dug deeper on the gender norms most prevalent in AFS. The literature was then mapped to the conceptual framework.

The critical literature review was undertaken in September–November 2022, using several databases including Google Scholar, Google Search, and JSTOR. A critical literature review draws from "a fair selection of works" to "tell a story to advance our understanding of what is already known" in an "original, perceptive and analytical" manner (Jesson and Lacey, 2006). It is therefore neither an exhaustive nor a descriptive study; rather, it identifies key topics discussed to unravel issues that are not necessarily well articulated in the mainstream literature (ibid.). This method is appropriate for our questions as the intent is to describe the current status, include a wide variety of studies, and provide an overall summary, with interpretation and critique (Sukhera, 2022). The questions guiding the review were:

- How are social and gender norms defined and conceptualized in AFS?
- What norm domains are relevant to measure in AFS?
- How does climate change affect women's economic resilience in AFS?
- What factors constrain women's economic resilience to climate change in AFS?
- What are potential leverage points for change?
- How can normative change be identified and measured in AFS?

> "A critical literature review draws from "a fair selection of works" to "tell a story to advance our understanding of what is already known" in an "original, perceptive and analytical" manner."
>
> (Jesson and Lacey, 2006)

A first step in responding to these questions was the elaboration of a long list of key words to use in the first stage of the literature scan. These included main key thematic terms – ***gender, social norms***, *normative change, transformative change, gender transformative change, measuring normative change, gender transformative approaches, gender(-based) discrimination, gender discriminatory bias, and normative constraints.* Secondary related terms were then combined with the key thematic terms to broaden the search, including *power dynamics, access, control, agency, power hierarchy, gender relations, gender (in-equality), women's empowerment, self-determination,* and *backlash*. In a second step of the literature scan, these combinations were crossed with search words directly connected with AFS and climate change, such as: *agriculture, forestry, fisheries, aquaculture, food systems, producers, processors, trader, climate change + challenges, resilience, vulnerability,* and *economic resilience*. Finally, literature searches were carried out to identify sources on indices and measurements related to gender and social norms.

From this initial scan, a set of key resources[5] was identified. These were organized in six rough categories: *social norms, gender norms, agriculture, gender indices, empowerment,* and *transformation.* In reviewing this set of resources, we excluded those that focused specifically on empowerment (not norms), as this term generated sources significantly outside of the scope of the guiding questions for the conceptual framework. The literature lists of the remaining 67 resources were then used to identify additional sources. In addition, a more specific search for the main key words was conducted in the Advancing Learning and Innovation on Gender Norms (ALIGN)[6] platform database in October 2022, and the key word list was expanded to include additional key words: *climate change* and *transformative change* where they intersected with *agriculture/agrifood systems, social/gender norms,* and *change*.

The compounded result of the literature from both the first scan and the second scan using ALIGN resulted in a database comprising 140 articles. Of these 140 articles, 17 were discarded because they were dated and other publications presented newer research on the same topic (e.g. several articles on gender norms), and in a few instances because the main focus of the publication was outside of the scope of the conceptual framework (e.g. on topics such as artisanal mining). Finally, a small number of articles were excluded for technical reasons: either they were not accessible or it was not possible to upload them in the program used for coding. A final set of 123 publications comprised the dataset for coding and detailed review.

5. Including: *Measuring gender-related social norms* (Cislaghi and Heise, 2016); *Guide to formulating gendered social norms indicators in the context of food security and nutrition* (FAO et al., 2022); *Measuring gender-transformative change: A review of literature and promising practices* (Hillenbrand et al., 2015); *Gender, power and progress: How norms change* (Harper et al., 2020); and *Gender, assets, and agricultural development: Lessons from eight projects report* (Njuki et al., 2016).
6. https://www.alignplatform.org/resources

Coding

The 123 selected publications were sorted, reviewed, and coded using the qualitative data analysis software Nvivo.[7] The coding tree comprised five main codes: agrifood systems, climate change, gender norms, social norms, and change (normative/transformational). Each of these main codes had a related set of sub-codes, and a small number of those sub-codes were further refined (see Table 1).

A team of three KIT advisors coded the articles, which required a common understanding and alignment of the definitions used for each code.

From the coded data, approximately 25 "queries" were run. A query is a term used by NVivo to describe searches across the coded documents. Queries extract excerpts coded under the different codes and levels of the coding tree and cluster that information in one document. For example, one query extracted and compiled all the excerpts that had been coded with both the "agrifood systems" and "social norms" codes; another query drew out all excerpts coded under "agrifood systems," "climate change," and "resilience." The queries helped make key themes within the dataset visible, including their prevalence. Running many queries where similar themes were combined ensured that all relevant data was systematized and included in the framework but it also resulted in some duplication where excerpts were cited in more than one query. Query compilations were cross-checked manually and, within each query, the excerpts were organized into sub-thematic headings. These headings informed and provided initial structure to the write-up of conceptual framework.

A seafood corner at Dong Xa market in Hanoi, Vietnam. Photo: © Vu Ngoc Dung

Table 1: Coding tree for the literature review of 123 publications

CODING TREE		
Agrifood systems		
Climate change		
	vulnerability	
	resilience	
Gender norms		
	definitions	
	components	
	eliciting (how to understand)	
	outcomes	behavior
	levels	individual
		household
		community
		systemic
Social norms		
	definitions	
	components	
	measuring	
	eliciting (how to understand)	
Change (normative/ transformative)		
	examples	
	measuring (methods to)	
	resistance	strategies
		patterns
		overcoming

7. https://lumivero.com/products/nvivo/

In Western Bengal, 70% of people depend on agriculture. This woman and her family make a living by selling vegetables, which she collects from her husband's field and sells at the market. Photo: © Krishnasis Ghosh.

In one step of the data analysis (April–May 2023), all excerpts coded in NVivo related to AFS value chain nodes, norm domains, and socioecological levels were organized in a table. The table was comprehensive and showed the depth and richness of the excerpts but quite unruly in size thus not an effective way to communicate the findings. To give an idea of the frequency and depth of discussion of different nodes, norms, and socioecological levels in the literature, without using the excerpts themselves, a related table used color coding to illustrate coverage.

At a later stage (July–August 2023), the subset of the 62 AFS and gender norms publications reviewed were further analyzed manually to put together an evidence mapping table (see Annex 2). This evidence mapping table covered the same three main components as the earlier iterations – namely, value chain nodes, norm domains, and socioecological levels (systemic, community, household, individual). This more systematic analysis was carried out by reviewing the abstracts or executive summaries (where available) or (where not available) the introductions of those 61 publications. When the abstract, executive summary, or introduction mentioned a particular value chain node, socioecological level, or norm domain, the table captured this. The table provides a systematic illustration of what each of the 62 publications on AFS and gender norms covers. This mapping indicates the most frequently cited[8] norm domains included in the conceptual framework and gives an impression of the relevance of each norm domain vis-à-vis different value chain nodes and socioecological levels.

Important to note is that a limitation of the search terms and methods used is that very little surfaced in relation to gender norms and consumption. For example, we did not tap into the vast literature on gender-related food taboos.

8. Note: frequency should not be conflated with relevance. It is an indication but is not definitive.

3. Positioning norms in agrifood systems

Agriculture is very often portrayed as and perceived to be a masculine activity (Elias et al., 2018). A longstanding frustration among gender researchers working on AFS is that men tend to be seen as "farmers" and women as helpers, at best. Modern agriculture is indeed deeply masculinized (Cole et al., 2015; Farhall and Rikards, 2021), with women's work devalued and often prescribed by what men do (e.g. men in farm management rendering women into farm labor). Women are often considered unfit to do the tough farm work – hard physical labor – or assumed to have "less energy" (Leon-Himmelstine et al., 2021) compared with "masculine rural" (men) (Campbell and Bell, 2000). This cultural linking of technology, leadership, and masculinity underpins gender norms influencing behaviors, opportunities, and constraints for both men and women (McDougall et al., 2021). When women are unrecognized as "real farmers," their farming and environmental initiatives remain hidden or regarded as an extension of domestic work (ibid.). Women who challenge the prevailing norms related to agriculture can be stigmatized, sometimes even considered *"shameful, promiscuous or witches"* (Elias et al., 2018). The implications of these deeply rooted gender norms and assumptions about a masculinized agriculture and the limited role of women therein are far-reaching. Several arguments emerge from the literature to support addressing gendered social norms that limit or constrain women in AFS.

> "This cultural linking of technology, leadership, and masculinity underpins gender norms influencing behaviors, opportunities, and constraints for both men and women."

CIMMYT field research technician Ganga Jaishy weighs plant material during harvesting of on-farm hybrid maize variety screening trial plot in Nepal. Photo: © CIMMYT/P. Lowe

3.1 Why gendered social norms matter in agrifood systems

A first argument as to why gendered social norms matter in AFS relates to **good farm management and on-farm decision-making.** Norms shaping how people perform their "gender roles" affect farm management decisions (Holmelin, 2019) and the scope that women and men have to be involved in decisions about the use of the income they earn as well as to have control over that income (Kantor and Kruijssen, 2014). In one study, strong gender norms in relation to decision-making proved so powerful that not only were men depicted as food providers but also women decision-makers were deemed unworthy of marriage (Njuki et al., 2016). Identification of men with agricultural tasks can pressure women farmers, especially single women farmers, to bring in male labor, for tasks like plowing in particular. Yet, at the same time, women often find it difficult to secure adult male labor (Badstue et al., 2020b). As a result, some women may be driven to sharecropping arrangements or reciprocal labor arrangements, or to work with their children (ibid.). Negotiation over socially accepted practices, gender norms, and gender roles concerns not only whether a woman can make farm-related decisions but also whether and how she – as a "farming housewife" – can expand into public spheres and activities beyond the farm itself (Holmelin, 2019). All of this renders women's full engagement in AFS an ongoing struggle and highly contested. Limits to women's on-farm decision-making, pressure to make particular decisions as a result of gendered social norms, and constraints on mobility and engagement in the public sphere severely limit women's potential.

During field day women farmers use a mini tiller for direct seeding maize. Ramghat, Surkhet, Nepal 2016. Photo: © CIMMYT/P. Lowe

A second argument for addressing gender norms in AFS relates to **access to innovation and services**. Technology and innovation alone will not improve the agriculture sector's outcomes, as social relations play a key role in shaping agricultural practices, knowledge, and outcomes (Kantor, 2013). Yet agricultural innovations intended to empower women continue to be risky for them (Sachs, 2019; Pyburn and van Eerdewijk, 2021; Petesch, 2022). For example, sometimes, taking up innovations comes at the cost of women's labor burden intensifying, as has been the case with net fishing (Lawless et al., 2019). Gender norms can and do constrain women's capacities to access new technologies and practices (Badstue et al., 2017). For example, gender norms have been documented as limiting women's access to and utilization of improved seeds (Cole et al., 2021), complementary technologies, and extension services in sub-Saharan Africa (Mangheni et al., 2019), and as limiting women's adoption and use of aquaculture knowledge, technologies, and practices (Farnworth et al., 2013; Morgan, 2014; Kruijssen et al., 2018).

Norms and the cultures in which they are embedded are reproduced in extension organizations and farmer organizations, as well as in households. Norms shape many aspects of extension, including staffing, methods used, extension packages, and messages promoted, all of which may disadvantage women (Mangheni et al., 2019). Public and private extension organizations working to foster agriculture and livestock production have been found to have striking anti-women biases, and tend to provide support primarily to men (Perez et al., 2015). As a result, women have been found to have less contact with services compared with men and are less active in the farmers' organizations that are often used as a vehicle for service delivery (Mangheni et al., 2019).

Further, new technologies can reduce the relative value of female labor, affecting women's bargaining power in the household. The digital gender divide mediates how both women and men interact with technology (OECD, 2019; IRH, 2020; Koning et al., 2021). A less studied aspect of this is the supply side, where gender norms can lead to biases in algorithms, inappropriate product offerings, and inadequate delivery channels (Koning et al., 2021). Household demands and constraints on women's physical mobility and social interactions can limit women's access to extension (Badstue et al., 2020a). Gender norms affect women's mobility and potential to engage in the productive economy (Koning et al., 2021) and whether they can enter and speak in public and in business contexts (Jayachandran, 2015). Unequal gender norms, although originating in technology change, can be maintained as social norms (Mackie et al., 2015).

A closely linked argument is that **capacity to innovate** is shaped by pressure to conform to social norms (Cohen et al., 2016), which, alongside agency and related assets and capacities – such as technical knowledge or social capital, influences women's access to, participation in, and benefits from agricultural and environmental (natural resource-related) innovation (Badstue et al., 2017, 2018a). Gendered social norms influence men and women's ability to try out, adopt, and make decisions around agricultural innovations (Badstue et al., 2018b). The fluidity of gender norms sets the context for engaging with agricultural innovation; more rigid ones norms be a factor inhibiting women's capacity to innovate (Aregu et al., 2018; Petesch et al., 2018b). Men tend to be better positioned than women to take advantage of innovation opportunities, and women innovators risk facing criticisms for challenging local gender norms, more so than men (Badstue et

al., 2018b). This is particularly the case, when women are married: spousal support is critical to the success of (married) women innovators (ibid.). In addition, norms are shaped by women and men's capacities to negotiate access to the resources and opportunities necessary for agricultural innovation (Petesch, 2022).

A fourth argument is that, **to address gender asset gaps in AFS**, a deeper understanding of how norms, customs, and laws influence the asset rights of women and men is needed (Weeratunge et al., 2012). Some norms are very persistent – for example deep-seated norms that view certain assets as "men's assets" (Koning et al., 2021) to the extent that, even where women are the intended beneficiaries of a program, men still primarily or exclusively control those assets and make major decisions in relation to them (Johnson et al., 2016). This may include ownership or control over assets such as land, cattle, and farming equipment (Cole et al., 2014). As a counterbalance, explicit steps are needed to ensure women maintain or accumulate assets, including on norms related to women's control and ownership (individually or jointly with others in the household) (ibid.). An example are gender norms shaping livestock management and affecting the assets that women can accumulate. Galiè et al. (2022) provide the example of species that women can control – small livestock like goats and poultry – versus those managed by men, which are often larger species (e.g. camels or cattle). Addressing gender norms in AFS addresses a blind spot in the work on gender gaps in agriculture, that of getting at the long-overlooked factors underlying those gaps (Weeratunge et al., 2012; Cornwall and Edwards 2014).

A fifth argument as to why gender norms matter in AFS is climate change-specific: **discriminatory gender norms make women more sensitive to climate change and shape adaptive capacity**. Rural women are widely regarded and reported as being at high risk of negative impacts from climate change (Rao, 2017). Household responsibilities (e.g. childcare, collection of firewood and water) render women more vulnerable to the challenges created by climate change, especially when they play bigger roles in agricultural work owing to male out-migration for labor. Low-income women and women-headed households are particularly vulnerable (ibid.). Systemic inequities and gender bias are exacerbated by worsening ecological conditions as a result of climate change, as this example from South Asia shows: *"more women die during floods due to lack of swimming skills, trying to save children and belongings, and staying at home instead of going to flood shelters. In addition, there are concerns of collapses in inheritance rights after disasters, disparities in disaster relief and aid, and issues of abandonment. Women's roles as caregivers exacerbate their existing burdens, even if floods, tsunamis, and cyclones affect entire households. Cultural constraints on what they can or should do to protect themselves often result in greater mortality rates among women and girls compared to men and boys"* (Sultana, 2014). Importantly, it is not women's sex (female) that makes them more sensitive to climate change challenges but rather the gendered roles, work, and responsibilities attributed to women and their related vulnerability as a result of gendered institutions, like inheritance systems.

"Some norms are very persistent – for example deep-seated norms that view certain assets as "men's assets" to the extent that, even where women are the intended beneficiaries of a program, men still primarily or exclusively control those assets and make major decisions in relation to them."

Women and men have differentiated but complementary roles, influenced by cultural values and social norms, which also **shape adaptation responses to climatic stresses** (Rao, 2017; Glazebrook et al., 2020). Women's diminished access to agricultural resources, combined with gendered social norms, can inhibit their adaptive capacity (Jost et al., 2016). Writing about South Asia, Sultana (2014) notes that, *"patriarchal norms, inequities, and inequalities often place women in considerably disadvantageous positions"* – particularly when it comes to responding to and coping with dramatic changes in socioecological relations. Power relations operate in complex ways in communal responses in adaptation strategies (ibid.). Adaptation becomes more challenging for women as a result of limited access to and control over land and significant household work burdens, let alone gender disparities in wage and employment (Sultana, 2014; Rao, 2017). Gender norms can limit women's access to and adoption of climate-smart technologies, as Mangheni et al. (2019) find: *"… women farmers have much lower adoption rates of drought-resistant varieties of maize than men. … studies indicate that despite the availability of climate-smart seeds and best intentions to distribute them, gender-based barriers may constrain women's access to these as a mitigation strategy."* Without access to climate-smart technologies, women farmers become more vulnerable to climate stress, which constitutes a weakness for climate resilience overall at community and regional levels. The same gender norms that inhibit women's participation in AFS value chains shape responses to climate change challenges. Climate-smart agriculture (CSA) is an example of an adaptation response and a sound strategy for climate

Harvesting WEMA maize trials at KALRO Kiboko Research Station, Makueni. Photo: © CIMMYT/ Peter Lowe.

> "At times, CSA approaches can entrench gender inequalities; at others, women's empowerment seems to be a factor in CSA adoption."

resilience. However, how CSA approaches perform in relation to gender equality and women's empowerment within households is not well understood. At times, CSA approaches can entrench gender inequalities; at others, women's empowerment seems to be a factor in CSA adoption (Huyer and Partey, 2020). Generally, women seem to be adopting CSA practices less frequently than men, owing to financial and resource limitations as well as the labor burden brought on by new, more labor-intensive tasks – for example composting, vermiculture – which become women's responsibilities (Jost et al., 2016). Changes to agricultural practices that come with CSA are largely following existing gender divisions of labor (ibid.), which implies that, when questions are not asked regarding control over new technologies and who the beneficiaries will be, CSA has the potential to solidify prevailing power and gender relations (Huyer and Partey, 2020). It is also important to assess preferences for innovations along gender lines. For example, Huyer and Partey (2020) find that men tend focus on large-scale community interventions such as irrigation whereas women prefer more practical improvements related to new crop varieties or diversification of production activities. For CSA to be positive for women, differences in preferences, priorities, and abilities to adopt new practices between different categories of women and men (by age, class, etc.) need to be considered (ibid.). These differences interplay with prevailing gender norms.

Finally, much has been written, and debated (Kawarazuka et al., 2022), as to the so-called "feminization of agriculture" but, clearly, **if women are to work in the agriculture sector, then they need to be inspired to do so**. Elias et al. (2018), in a large-scale qualitative study, found that gender norms that discriminated against women dissuaded them from wanting to work in the sector: young women, unlike their male counterparts, expressed little interest in agriculture-related work. Others back this up, finding that limited rights and lack of land access and ownership act as a disincentive for women to practice (for example) CSA (Jost et al., 2016). Further, a set gender division of roles and responsibilities can limit (young) women's ability to learn new skills related to agriculture (Badstue et al., 2020a), and young women's marriage and childbearing from an early age – influenced by gender norms – can affect time available to engage in commercial farming, as well as capacities to do so (Leon-Himmelstine et al., 2021). These normative factors affect the future of the agriculture sector and women's potential and motivation to work in it.

Field technician Maurene Adhiambu records data testing moisture of DT maize grains in field trial at KALRO Kiboko Research Station, Makueni. Photo: © CIMMYT/ Peter Lowe.

3.2 Persistent versus unexpected norms

Remarkable to note is how some ideas reflecting "ideal" gendered behaviors and expectations are quite similar across countries and in different communities within the same country (Muñoz Boudet et al., 2013). An example is the "breadwinning" role attributed to men and domestic roles – care and reproductive work – being attributed to women, both of which are often considered core to male and female identities (ibid.). Importantly, women describing their occupational status as "housewife" despite other economic activities is not limited to a specific geography or value chain node (Petesch, 2022). Moreover, in relation to AFS, the portrayal of a "good farmer" is of someone having strong agricultural know-how but this does not mean that the woman "good farmer" is free from the responsibilities of being a "good wife and mother" alongside farm work (Badstue et al., 2017). Thus, women's household labor and work burden prevail: care work and household chores are rarely mentioned in relation to what makes a "good (male) farmer" (ibid.). The normative frameworks that code authority and productivity as masculine and, conversely, submission and reproduction as feminine significantly shape the lives of people across the world and how men and women feel able to act on opportunities (Badstue et al., 2020a). These frameworks not only have a direct impact on the individual and their choices but also permeate the way institutions operate (ibid.).

Although most norms identified in the literature tend to be restrictive and/or harmful for women, it is worth noting that **norms can also support gender equality** (Pearse and Connell, 2016). Furthermore, the destabilization of traditional gender divisions of labor can open up spaces for women to innovate and experiment with different livelihood activities (Muñoz Boudet et al., 2013). Noteworthy is that contradictory norms – those that hamper gender equality and those that enable gender equality – can co-exist (Pearse and Connell, 2016). While literature on how to use gender norms as levers for change is limited (Harper and Marcus, 2018), there are geographic examples of cases where norms traditionally allow women substantial responsibility in their own right for agricultural production, and encourage women's economic self-reliance. Needless to say, the prevalence of enabling norms, and the underlying reasons for them, differs across regions (FAO, 2011). For example, they can be related to a greater value being placed on girl's education, which has a delaying effect on marriage age and first pregnancy (OECD, 2019). More research is needed to understand better the gendered social norms that enable and catalyze gender equality and act as levers for change.

Before turning to the evidence on gendered social norms in AFS, we first delve into the social and gender norms literature to better understand how norms work and how they change over time.

> "...the portrayal of a "good farmer" is of someone having strong agricultural know-how but this does not mean that the woman "good farmer" is free from the responsibilities of being a "good wife and mother" alongside farm work."

4. How gendered social norms work

While social psychology and behavioral economics generally use the term "social norms," gender equality literature and interventions tend to refer to "gender norms," though the issues and what the terms refer to do overlap (Harper et al., 2020). Gender norms are often considered to be a subset of social norms (Cislaghi and Heise, 2020; Harper et al., 2020; Social Norms Learning Collaborative, 2021 based on biological sex and/or social perceptions of gender (USAID, 2021; Social Norms Learning Collaborative, 2021). Gender norms permeate gender roles and the gender division of labor, beliefs, attitudes, and behaviors[9] (Muñoz Boudet et al., 2013). They are socially constructed (Social Norms Learning Collaborative, 2021 and interdependent with how gender is conceived within a given society (Suruchi et al., 2020), including expectations of how people of different gender identities should relate and interact (USAID, 2021).

The literature distinguishes two schools of thought on social norms, broadly along disciplinary lines (Petesch et al., 2018a) (see Box 2).

Box 2: Do norms preside in our minds or in social/societal institutions?

Social psychologists and behavioral economists conceive of norms as operating through people's beliefs about what is in the minds of others (Cislaghi et al., 2019; Harper et al., 2020). Norms are maintained and reproduced through processes of approval and disapproval among individuals who interact regularly: the reference group[10] (Mackie et al., 2015; Cislaghi et al., 2019). The power of norms for this school of thought lies in the fact that people believe that others conform to and value the social expectations behind them and that social approval hinges on compliance (Mackie et al., 2015; Cislaghi et al., 2018). **Normative change**, in this school of thought, **must happen at the level of individual and group mindsets** (Harper et al., 2020).

Anthropologists, feminist scholars, and sociologists constitute a second school of thought with the central idea that norms are rules of behavior based at the societal level, embedded in, for example, rules, laws, conventions, education, and religious codes (Pearse and Connell, 2016; Cislaghi et al., 2019; Harper et al., 2020). This school of thought conceptualizes **norms as *"existing in the world outside of the individual"*** (Cislaghi et al., 2019). Gender theory contributed the observation that gender norms are embedded in social institutions – like policies, regulations, and decision-making processes. It is through institutions that gender norms are reproduced (Cislaghi and Heise, 2020). People internalize these norms when their lives intersect with these institutions (ibid.), through social mechanisms including socialization in childhood through family life and among peers (Cislaghi et al. 2020). **Normative change** in this school of thought **must target visible and invisible social institutions and structures** (Harper et al., 2020).

9. Linking back to the distinction between behaviors and behavioral rules (Cislaghi and Heise, 2016; Cislaghi et al., 2019), gender norms should not be conflated with or reduced to gender roles (van Eerdewijk et al., 2017). Gender roles are the behaviors whereas gender norms are the socially constituted rules that differentiate women and men's expected roles and conduct (McDougall et al., 2021). Norms "do not dictate people's behavior, but rather demarcate a space for socially acceptable practices" (Holmelin, 2019). This includes rules governing interactions and status distinctions between and among women and men (Pearse and Connell, 2016). They govern behaviors considered appropriate, acceptable, or desirable for women and for men within a particular society (Lawless et al., 2019; Cislaghi and Heise, 2020) and are foundational for organizing social relations and institutions in all societies (in FAO et al., 2022).
10. Different groups of people hold to different norms. A "reference group" or "reference network" in the social norms literature refers to people whose opinions matter most in a particular context (Stefanik and Hwang, 2017; Cislaghi et al., 2019; FAO et al., 2022): a group of valued individuals sharing reciprocal expectations or beliefs about typical and appropriate behavior (Mackie et al., 2015; Alexander-Scott, 2016). It is the beliefs and practices of a reference group that reinforce norms (Marcus, 2018; FAO et al., 2022): they are the "relevant others" (Mackie et al., 2015). A reference group can be as big as people living in a geographic region, or even bigger – an ethnic group, a religion – or as small as a peer group or classroom (Marcus and Harper, 2014). Reference groups can enforce appropriate behavior through rewards or punishment (sanctions) (Cislaghi et al., 2019; Social Norms Learning Collaborative, 2021).

Rwanda Agricultural Board applauds the accomplishments of ICT4BXW Project and supports scaling. Photo: © IITA.

Critiques of the first school of thought consider that psychological theories on norms are limited in that they miss critical dimensions, including power dynamics in social relations, childhood socialization practices, and the fact that norms are embedded and reinforced by institutions and the increasingly recognized fluid and changing nature of gender[11] (Cislaghi et al., 2018). Those embracing the second school of thought, feminists among them, embrace notions of gender norms and gender roles to explain socially constructed rules that are *"applied to groups constituted in the gender order"* (Pearse and Connell, 2016). In daily life, individuals engage in practices that *"align or contest various notions of masculinity or maleness and femininity or femaleness"* (Cislaghi and Heise, 2020). People learn, enact, and enforce gender norms through their behaviors, attitudes, and expectations (Pearse and Connell, 2015 in Cislaghi et al., 2016; Hyde, 2014; Harper et al., 2020). This conceptualization considers that *"inequitable gender norms reflect and perpetuate inequitable power relations that are often disadvantageous to women"* (Cislaghi and Heise, 2020). We align with this second school of thought that makes power relations more explicit in studying norms and also implies a focus on societal institutions and structures in addition to individual behavior, when it comes to normative change.

4.1 Who gender norms affect

While norms are just one aspect of gender relations – alongside the gender division of labor, gender roles, socialization, and gendered power relations – some consider them to be the social rules and expectations that keep the gender system intact (Heise et al., 2019; Cislaghi and Heise, 2020). Gender norms shape the actions of women and men in a particular group or society to the point that they become a profound part of a person's sense of self (Cislaghi et al., 2018). They are *"nested in people's minds"* as well as being institutionally embedded (ibid.). They are produced, reproduced, upheld, and reinforced through social interaction, via institutions, and by individuals (Marcus, 2018). Gender norms matter because they shape women and men's (often unequal) access to resources and freedoms, thus affecting voice, agency, and power (Cislaghi et al., 2018). They can exert influence over economies and financial markets (Koning et al., 2021) and many spheres of social and political life (Marcus, 2018). They can be powerful forces in sustaining the status quo of existing hierarchies (Edström et al., 2015)

11. The social norms literature is less aware of the notion of gender as "performance" – that is, norms being sustained through daily interactions as people communicate their gender identity by the way they talk, walk, dress, speak, or interact (Cislaghi et al., 2018).

Woman using spreader for fertilizer application India, 2014. Photo: © CSISA/ Wasim Iftikar.

Gender norms apply to all gender categories; however, in practice, the main distinction tends to be between women and men (Pearse and Connell, 2016). They are generally understood as defining the expected behavior of people who identify (or are identified by others) as male or female (Harper et al., 2020). As social rules, they frame what is "typical and appropriate" for a woman or man to be and do in their society (Kruijssen et al., 2018; Badstue et al., 2020a; Harper et al., 2020). That is to say: *"communities and societies create collective beliefs about what behaviors are appropriate for women and men and the relations between them"* (Social Norms Learning Collaborative, 2021). Gender norms are a type of sociocultural regulation or social control mechanism that provides a sense of direction to men and women (Spencer et al., 2015 in Mangheni et al., 2019).

Gender norms often reflect and reinforce unequal gender relations, disadvantaging women and girls, as well as men and boys who do not conform to the prevailing gender norms (Harper et al., 2020). Further, prevailing gender norms often overlook non-binary or gender-fluid identities (ibid.). That said, some definitions of gender norms do explicitly include intersections like age and stage in life (Edström et al., 2015; van Eerdewijk et al., 2017; Marcus 2018; Cislaghi and Heise, 2020; Petesch, 2022), household position, marital status, socioeconomic category or class, education (Petesch, 2022), caste, ethnicity, religious affiliation (Badstue et al., 2020b), disability (van Eerdewijk et al., 2017), non-binary genders, sexual orientation, and gender identity (Burjorjee et al., 2017 in Koning et al., 2021; Harper et al., 2020; USAID, 2021).

"Gender norms apply to all gender categories; however, in practice, the main distinction tends to be between women and men."

Box 3: Norms related to masculinities

Norms around manhood often act to sustain male dominance in social, political, and economic spheres (Edström et al., 2015). But they can also disadvantage men and constrain their agency, an effect that can intensify if men are not able to use "their authority" or provide for their family, or if they perceive these roles to be contested (Petesch, 2022). Manifestations of masculinity are linked to local ideals defining what it is to "be a man" and can have negative effects on both women and men (Cole et al., 2015; Edström et al., 2015). For example, men are often prescribed to take risks, to be stoic in relation to expressing emotions, to be sexually active and aggressive, heterosexual, and drink alcohol, to not seek help, to be tough, brave, and invulnerable, and to provide for their families (Edström et al., 2015; van Eerdewijk et al., 2017; UNDP, 2020). Social pressure and expectations around masculinity can shape men and boys' decisions and behavior in ways that can be harmful for all (UNDP, 2020; FAO et al., 2022). Both women and men construct, reinforce, uphold, and accept these ideals and sometimes harmful messages about men's roles and expected behaviors (Greene and Levack, 2010; Harper et al., 2020). But this is not, of course, inevitable, as masculinities are now understood to demonstrate a diversity of expressions of manhood (Edström et al., 2015). Still, changing masculinity norms requires addressing social ridicule and stigmatization afforded to those failing to embrace those norms, as well as acknowledging and challenging the power and privilege that is embedded in them (Amin et al., 2018).

Gendered social norms are powerful: they influence human behavior both in familiar situations where the rules are known and in unfamiliar situations where people try to learn the new rules and comply with them (Cishlaghi and Heise, 2016). They affect how we all act in our everyday lives, including by determining the distribution of the benefits of social and work life (Knight and Ensminger, 1998 in McDougall et al., 2021). Norms sometimes represent the interest of power-holders and, as such, instill unconscious biases to support the reproduction of the norm (Muñoz Boudet et al., 2013). However, they do not necessarily benefit anyone (Cislaghi and Heise, 2020). Importantly, the driver behind the maintenance of gendered social norms is social influence (Stefanik and Hwang, 2017). Perceived approval and disapproval play a key role in maintaining norms, which includes both covert attitudes and overt rewards and sanctions (Mackie et al., 2015; Stefanik and Hwang, 2017).

Norms are enforced through rewards and punishment – through positive social rewards for adherence to a norm as well as social pressure and perceived negative consequences for deviation from a norm or failure to conform (Mackie et al., 2015). Social rewards can be wide-ranging and include enhanced social status, approval, inclusion, and standing in the community (Marcus et al., 2015; Cislaghi et al., 2019; Harper et al., 2020). The negative consequences for not conforming to a norm are wide-ranging also, including ridicule, social pressure, public surveillance, exclusion, sanctions, intimidation, and stigma (Bicchieri and Mercier, 2014; Marcus et al., 2015; Marcus, 2018; Cislaghi et al., 2019; UNDP, 2020). Beyond actual consequence from others, fear of social disapproval, embarrassment, gossip, violence, or ostracism (shunning) of individuals is a motivator to conform (Bicchieri and Mercier, 2014; Harper et al., 2020). The power and influence of social norms lies also in people's expectations of what may happen if they comply with or deviate from the norm in question (Cislaghi et al., 2019).

"The negative consequences for not conforming to a norm are wide-ranging also, including ridicule, social pressure, public surveillance, exclusion, sanctions, intimidation, and stigma."

4.2 Interlocking norms across socioecological levels

Part of the power and complexity of norms is that they develop, are reproduced, fade, and transform across different socioecological levels (see Figure 2), starting with the **individual** and extending to the **household** (interpersonal), **community** (organizational), and **systemic**[12] (institutional) levels. Norms produce and reproduce norms across socioecological levels through a complex web of interactions (Morgan, 2014). A social norm is held in place by multiple levels and forces: *"… a gender-discriminatory norm may be experienced primarily within the household but be held in place by local custom, perceptions of what is required by religious tradition, stereotyping in the media, certain groups' economic interests or the political interests of particular constituencies"* (Marcus and Harper, 2014). Internalization of norms through socialization begins in the family and is reinforced (or contested) through the community (e.g. teachers, faith leaders, peers) and supported institutionally with exposure to media and through policies, customary law, and legislation (Heise et al., 2019). Norms that manifest across socioecological levels are systemic.

Individuals use gender norms to coordinate their behavior with others and carry meanings about gender into all social relations and into new social contexts in which they engage (Ridgeway, 2009; FAO et al., 2022; Petesch, 2022). Individual attitudes and beliefs contribute to the active construction of gender norms and their reproduction in gender hierarchies contrasting desirable masculinities and femininities with non-conforming or marginalized groups (Pearse and Connell, 2016). While norms are collectively held, they are "naturalized" within us (Harper et al., 2020). They have an implicit existence that is deeply embedded in our sense of who we are (Gammage et al., 2016) and in individual values (UNDP, 2020). Norms are absorbed, learned, accepted, and followed from a young age, both consciously and unconsciously (Learning Collaborative to Advance Normative Change, 2019; McDougall et al., 2021). Socialization throughout childhood and adolescence is so strong that the norms are often so internalized that the related ideas and actions are taken for granted and are beyond questioning (Harper and Marcus, 2018).

12. Systemic levels may include agroecological landscapes, market systems, the policy and legislative environments (Badstue et al., 2018b), organizational structures and practices, discursive systems, commercial transactions, and collective identities (Pearse and Connell, 2016).

Bean power in Tanzania.
Photo: © 2016CIAT/GeorginaSmith

Norms playing out in a **household** create an unconscious gender bias for children to the point where parenting practices and behaviors are among the predictors of an individual's gendered behaviors and expectations in life (UNDP, 2020), including young women and men's educational and occupational aspirations (Elias et al., 2018). An intergenerational effect can be seen whereby gender norms are "passed down" through observation and repetition of behaviors: children learning the "right" behaviors for men and women from their parents (Fleming et al., 2013 in van Eerdewijk et al., 2017). But this is not a passive process: children actively reproduce and make norms, and enforce them, for instance by means of ridicule (Máirtín Mac and Ghaill, 1994 in Pearse and Connell, 2016).

Within **communities**, systemic norms both tighten and relax to accommodate practices in the local context (Lopez et al., 2022; Petesch, 2022). Women and men navigate and shape gender norms through upholding, enforcing, complying with, resisting, negotiating, and withdrawing from specific norms in their daily activities and interactions within the household and community (Aregu et al., 2018; Petesch, 2022). Norms become subjects of negotiation and resistance when they constrain or are no longer relevant to people's daily lives (Petesch et al., 2018b). Prevailing gender norms in a community – what Petesch (2022) refers to as the *"local normative climate"* and what Lopez et al. (2022) refer to as the *"gender climate"* – interact with other dynamics in the context to differentially shape women and men's sense of agency and the opportunities they have in their lives (Petesch et al., 2018b). In responding to norms, men and women carve out room for maneuver for their own life projects as individuals (Petesch, 2022) but are also part of an active and ongoing transformation process of the norms themselves. Importantly, the local normative context may encourage or discourage agency, and this will differ for different social categories of women and men (ibid.).

Norms influence how an **institution** takes on, promotes, or resists efforts to further gender equality (van Eerdewijk et al., 2017) through, for example, organizational procedures and rules, how policy is developed, how interventions are planned and executed, and ultimately who these instruments recognize and enable (McDougall et al., 2021). Social norms at are thus reinforced through institutions that hold authority and in this way are embedded into religious or moral world views (Harper et al., 2020). Institutions reflect and shape how people behave and interact and thus it is important to understand the institutional (systemic) basis for gender inequality (Branisa et al., 2014) alongside individual, household, and community manifestations. But institutions, much like households and communities, are a part of processes of negotiation or contestation of norms, which in turn likely affect the future development and shape of the institutions themselves (Pearse and Connell, 2016). Formal rules can also be contradicted by gender norms (Brikci, 2013 and Clinton Foundation, 2015 in van Eerdewijk et al., 2017), for example when a law becomes irrelevant owing to common practice.

Systemic reinforcement of gendered social norms underpins, and is sometimes a condition for, norms at other socioecological levels (e.g. household, community). Individual, household (interpersonal), and community (organizational) gender norms are in an iterative relationship with broader economic social and development contexts and processes – they both reflect and are affected by them (Pearse and Connell, 2016; Harper and Marcus, 2018). Comprehensive societal, religious, or cultural institutions can shape and reinforce systemic norms, for example the practice of seclusion (purdah) in some parts of the world (Sultana, 2014); gender norms rooted in a patrilineal inheritance system and entwined with religious values and practices in Bangladesh (Aregu et al., 2018); or the expectation prevalent in numerous societies that women will engage in care and household work, supported in some cases by tax policies and regulations that define the man as the household head, or national health policies requiring permission from a male partner when a woman seeks contraception (Bill and Melinda Gates Foundation, 2017). This interlocking nature of gender norms that are reinforced across socioecological levels is extraordinarily powerful.

4.3 Transformative (normative) change

An important part of GTAs lies in triggering reflection on gender norms and supporting changes in restrictive gender norms to advance gender equality and get at the roots of inequality. As such, understanding how normative change happens is a critical step towards being able to support it, including through developing tools to measure transformative change.

It is well documented that norms are fluid, contextual, time-bound, and contested (Pearse and Connell, 2016; Elias et al., 2018; Mangheni et al., 2019; Cislaghi and Heise, 2020 in FAO et al., 2022; Petesch, 2022). They change, allowing different roles, responsibilities, and behaviors to become accepted while the "old" norms fade and become obsolete (Alexander-Scott, 2016). In some respects, norms are in a constant state of flux and change as they are the subject of ongoing bargaining and negotiations in households and communities (Pearse and Connell, 2016; Locke et al., 2017). Norms prescribe but do not directly translate into practices: people translate and alter meaning to fit their lives, contributing to an often hidden process of change (Gammage et al., 2016). Normative change is facilitated by strong common interests (e.g. among women and men) for change (Aregu et al., 2018), the choice or compulsion to act in a different way among enough of the reference group (Harper et al., 2020), and courage (Badstue et al., 2017).

"In some respects, norms are in a constant state of flux and change as they are the subject of ongoing bargaining and negotiations in households and communities."

Gender norms neither form nor change in isolation (Edström et al., 2015): they are both socially constructed and socially deconstructed or reshaped over time and in different contexts (Badstue et al., 2017; McDougall et al., 2021). At the same time, however, the interdependency of belief, expectations, and actions within a reference group can make norms "stiffly resistant to change," even among those who might prefer not to follow the norm (Mackie et al., 2015). The more central a norm is to the identity of the group, the greater the reward for compliance and the more severe the punishment for non-compliance (Cislaghi et al., 2019). The "stickiest" social norms – the most resistant to change – are among individuals with the most to gain from compliance and the most to lose from challenging the norm (UNDP, 2020). Gender norms are difficult to change as they imply a challenge to a prevailing world view and can imply changes in the balance of power between different groups (Harper and Marcus, 2018). Finally, hindrances to change include an absence of the information or knowledge to act or think differently (UNDP, 2020).

Norms often represent stereotyped ideals, which are difficult, if not impossible, to fully live up to in real life. This means that everyday life often requires some negotiation or "bending" of social norms (Badstue et al., 2017). In fact, gender norms are interpreted differently by different people and constantly challenged and negotiated, often in subtle and intricate ways (Badstue et al., 2017; van Eerdewijk et al., 2017). Norms can be reproduced and contested – can restrict or tighten and relax or disappear altogether – at the same time (van Eerdewijk et al., 2017; Petesch et al., 2018a). A departure from prevailing norms can even go unnoticed, co-existing alongside more conformist behavior (Gammage et al., 2016). The restrictiveness of norms and the associated risk of social stigma for those who do not conform vary across communities and for different social groups within them (Badstue et al., 2017). Questioning or disregarding social rules – overt or covert contestation and negotiation – can create space for normative change (van Eerdewijk et al.,

Farmers at Godilogo, Cross River State, Nigeria will increase their productivity through planting of improved cassava stems distributed by IITA/CTA. Photo: © International Institute of Tropical Agriculture/Flickr

2017; Badstue et al., 2018b). Importantly, opportunities to contest norms and spur normative change are experienced differently not only by different women and men but also by the same person as they move through their life (Petesch et al., 2018b), and they differ across other categories of social differentiation, including caste, class, age, marital status ethnic, and religious and socioeconomic groups (Holmelin, 2019; Badstue et al., 2020b).

> "It is not uncommon for [men] to express open dissatisfaction that women are gaining a stronger and more independent voice."

Individuals and groups of people do play a role in renegotiating norms and in normative change, as do larger processes of socioeconomic change related to (for example) processes of democratization, technological advances, labor migration, and structural transformation of economies (Gammage et al., 2016). However, constraints to normative change are often embedded in organizational bodies and practices and economic transactions (ibid.), making them resistant to transformation. Challenging norms that impede gender equality and women's empowerment often requires acting on more than one factor (UNDP, 2020) and more than one level at the same time.

Part of the challenge of normative change is that it implies complex shifts in privilege and position – alterations to social, gender, and other hierarchies – to which the holder may feel entitled (Petesch et al., 2018b; Social Norms Learning Collaborative, 2021. People may have conflicting interests to uphold restrictive norms at different junctures of their lives and, importantly, the same norms that constrain agency at one juncture may enable it at another (Petesch, 2022). For example, a young married woman constrained by the authority of her mother-in-law may be enabled with authority later in life when she herself becomes a mother-in-law. Backlash, push-back, and resistance are common reactions to normative change: it is not *"uncommon for [men] to express open dissatisfaction that women are gaining a stronger and more independent voice"* (Muñoz Boudet et al., 2013 in Petesch, 2022). Backlash tends to entail losing power and status (Stefanik and Hwang, 2017). Social backlash may be the consequence for individuals (or their families) if they deviate from a community norm (Stefanik and Hwang, 2017; Social Norms Learning Collaborative, 2021). Backlash can happen within the family as well as among community members (Lawless et al., 2019). While sometimes a sign that a norm is shifting, backlash is not necessarily an indication of norm change (Social Norms Learning Collaborative, 2021.

5. Mapping the evidence on gendered social norms in agrifood systems

The literature reviewed demonstrates that gender norms influence men and women's participation and benefit from different AFS activities. For example, masculinity and the performance of "strenuous" tasks are often considered to be "naturally" connected (Elias et al., 2018; Percy et al., 2022); gender norms dictating that "respectable" women do not trade in fish limit participation in some AFS activities in some societies (Bradford and Katikiro, 2019). The interconnectedness of gendered social norms across different norm domains is important to bear in mind. For example, while owning assets can increase bargaining power and authority for women, ownership does not automatically lead to unrestricted agency over those assets; rather, women are often expected to consult other household members before making decisions related to those assets (Njuki et al., 2014). This impedes women from investing in more profitable livelihoods (Koning et al., 2021), which could ease the work burden that many women experience by, on average, working longer hours than their male counterparts (Percy et al., 2022; FAO, 2011). This example demonstrates the interwovenness of ownership, bargaining power, decision-making, and work burden. Overlaps across all categories underscore the interrelatedness and the value of systemic analysis.

To enable an overview of the evidence, we map the 62 publications that fall at the intersection of the AFS and gender norms literature against the 6 most prevalent gendered social norm domains to see where they are addressed in the AFS and at which socioecological level(s) (see Section 2 for more detail as to how we categorized the studies). Annex 2 provides a visual impression of coverage and gaps in the literature and where the analysis in relation to norms in AFS has focused to date. Specifically, the table in Annex 2 compares those 62 publications across the following content dimensions:

- **Norm domain:** access to, ownership of, and control over productive resources; gender division of labor; influence and decision-making; decorum and mobility; bodily autonomy and freedom from violence; participation, leadership, and representation
- **Socioecological level:** individual, household (interpersonal), community (organizational), systemic (institutional)
- **AFS component** *(value chain node, support, or enabling environment):* input supply, production, processing, trade and marketing, consumption, support and enabling environment, cross-cutting

As such, the table brings together the foundational layers mentioned in Section 2 on methods. The **socioecological model** helps us understand the levels at which norms operate (shape or get shaped). Much work on norms within different nodes of the value chain focuses at the individual, household, and community levels. Support to **AFS** actors happens through organizations operating at higher levels (organizational and systemic), including developing gender-biased policies, extension services, aid/development initiatives and programs, research, etc. These **'norm domains'** cut across socioecological levels and value chain nodes (AFS components).

The table is based on what can be found in the literature and, as such, it illustrates what people are studying and writing about, not necessarily the norms that are most important in practice. It should be seen as indicative only. That said, a number of insightful observations can be made. In the paragraphs that follow, we pull out some clear findings from the literature review on each norm domain and make some observations on the prevalence of the literature on that domain.

5.1 Across norm domains

For each of the six norm domains, we first clarify the domain and make observations on the literature available before drawing out main messages across the publications covering the domain.

Access to, ownership of, and control over resources

This domain includes ownership of land, assets, and productive resources like farm machinery, seeds, and livestock; and control over and access to resources, extension and financial services, and technical knowledge, among others. Norms related to access to, ownership of, and control over resources come up throughout the literature on AFS. As one might expect, these norms come out strongly in relation to production and, to a marginally lesser extent, input supply. They are least covered in relation to processing and consumption. Access to, ownership of, and control over resources is also referred to often on trade and marketing as norms cross-cutting the AFS at the community and systemic levels.

Associations between masculinity and production construct and uphold the narrative of farmers as being male (Badstue et al., 2020b), and by extension better farmers (Elias et al., 2018), when compared with women farmers. This despite findings demonstrating that women would achieve the same yields if they had the same access to resources and services (FAO, 2011). Gender norms affect smallholder production in different ways, including in terms of the kinds of livestock women are expected to own and rear (small); lucrative crops like cocoa in Ghana or palm oil in Indonesia being seen as "male" (Djoudi et al., 2016); low expectations of women's participation in training, especially if they are a part of a male led household (Petesch, 2022); the product(s), if any, that women sell to earn income (Quisumbing et al., 2013); and the price paid for land, with women reported to have paid more than men (Lambrecht, 2016). In parallel, women farmers often have limited access to land, paid labor opportunities, extension services, information about pricing, worker organizations, etc., and tend to be excluded from modern contract farming arrangements (FAO, 2011). This leads to women continuing as subsistence producers rather than moving into more lucrative cash crop production (Rao, 2017).

Land ownership and, by extension, the **inheritance of land and other assets** are at the center of productive autonomy (Perez et al., 2015; Quisumbing et al., 2015; Badstue et al., 2020b; Leon-Himmelstine et al., 2021; USAID, 2021). Local norms and expectations affect how customary property rights are implemented, and at times local norms are underpinned by formal law (Farnworth et al., 2013). This affects women who are widowed or divorced perhaps most of all – women who in the past had access to (their) land through the husband but whose rights become contested by both the husband's family and even their own sons (Farnworth et al., 2013; Badstue et al., 2020b). Not only do men and women have different access to and control over assets, but also their respective assets differ in character. Women tend to have less land and less tenure, and the land they control is often poor quality (Perez et al., 2015). Assets controlled by men tend to be of higher value, allowing men to pay for labor and technologies, whereas women's assets are more limited, whether this is smaller livestock, jewelry, or kitchen equipment (Farnworth et al., 2013). Although norms around property rights cut across regions, they can also be context-specific in how they manifest (Hillenbrand et al., 2015).

Dimensions of resource ownership, access, and control are often intertwined. For example, access to extension services – which are targeted primarily towards men farmers (Perez et al., 2015) – also reflects that asset ownership or lack thereof is not only about the material resource but is also imbued with symbolic value related to respectability and status (Rao, 2017). It is not only participation in trainings and access to extension services that differ based on gender. The benefits and by extension the impact on production may look different as well, depending on whether a training takes existing gendered conditions into account (or not) (Quisumbing et al., 2015; Mangheni et al., 2019). Moreover, the gender assets gap does not necessarily decrease when women increase their production, as the production of men participating in the same training increases more (Quisumbing et al., 2015). Importantly, restrictive gender norms within extension services hamper these organizations in effectively serving women farmers (Mangheni et al., 2019). The conceptualization of farmers as men by public extension services fuels the absence of relevant information for women (Jost et al., 2016). At a systemic level, there is often inadequate gender awareness in extension (Mangheni et al., 2019).

When it comes to **trade, marketing, and retail**, the kind of product sold depends on, among other things, access to funding, where women often face difficulties in obtaining resources to invest in the production of crops generating a higher income or in merchandise to resell that allows them to enter higher-value markets (Kantor and Kruijssen, 2014). Exceptions (or contestations of the norm) occur for women-led households, where there is more acceptance of woman farmers investing in machinery, land, or new livestock breeds (Petesch, 2022).

Women hard at work planting seeds while a man drives the plough to harrow the soil in Myanmar. Photo: © Jess Mentha/Flickr

At the **systemic level**, unequal access to education and discriminatory legal frameworks (USAID, 2021) as well as cultural barriers related to accessing the credit market impede women from opening bank accounts, entering into contracts, or getting loans (FAO, 2011). Commercial agricultural development, new technologies, or planned agricultural or environmental interventions affect gender norms and gender relations more broadly (Badstue et al., 2018b).

Influence and decision-making

Influence and decision-making, whether about agricultural production or use of income generated, is a gender norm domain that is particularly important at the household (interpersonal) and community levels. Norms related to influence and decision-making are most prevalent in the literature in relation to value chain support and enabling environment actors as well as cross-cutting the AFS. The discussion on these norms comes out at the household, community, and systemic levels. The domain comes out strongly at the community level vis-à-vis norms related to (smallholder) production and more weakly at the household level and systemic levels. At the processing node, a few references have been made to influence and decision-making at the systemic level only. Interestingly, at the household and community levels, no reference is made to influence and decision-making norms related to (commercial) production, processing, trade, or consumption.

Many important decisions take place at **household level**, on matters including, but not limited to, **how to manage common assets and agricultural resources, who participates in which activities** (Rao, 2017), the **division of nutrition** among household members, the mobility of different household members (Jahan and Farnworth, 2014), the **division of household (and farm) labor**, possible activities in the informal market (Percy et al., 2022), and access to and control over land (Cole et al., 2014), to name a few. The household is where such decisions are negotiated, and can also be where the norms are reproduced, maintained, and contested (Pearce and Connell, 2016).

Spaces where norms and sometimes formal rules restrain people (who are not men) from participating in decision-making are not limited to AFS. The belief that women should not participate in **political activities** strengthens the norm constraining them from taking up spaces invested with power, influence, and decision-making (van Eerdewijk et al., 2017). Similarly, these norms can manifest in local community and traditional governance systems as well: even when there is (theoretical) consensus as to shared decision-making in households, in practice men often have a final say (Lawless et al., 2019). Surprisingly, norms limiting women's influence and decision-making can also be upheld in matrilineal societies (Percy et al., 2022).

Limitations in influence and decision-making **affect access to financial services for women**. For example, norms around control and power stipulate that women should not have financial privacy from their husbands or other male relatives, or savings of their own (Koning et al., 2021). This restricts, for example, decision-making on how to use proceeds from joint agricultural activities (Leon-Himmelstine et al., 2021).

Gender division of labor

The gender division of labor related to care work and household chores is key to this norm domain, as is the often-implicit notion of who "is able to" and who "should" carry out "productive" versus "reproductive" tasks. The gender division of labor norm domain is the most prevalent in the literature, especially regarding production, processing, trade, and markets, although it comes out at all value chain nodes and cross-cuts the AFS. The consumer level and support actors and enabling environment were the least referenced in the literature in relation to the gender division of labor norm domain.

How men and women relate to each other **in the household** is ruled by underlying assumptions about gender (Mangheni et al., 2019). This is encompassed by the overall discourse around women providing reproductive labor and men providing productive labor (Badstue et al., 2017), with care work consistently undervalued (Edström et al., 2015). Norms around the gender division of labor not only hamper women's participation in the labor market outside of the household but also regulate men's involvement in domestic chores and care within the household (Kantor and Kruijssen, 2014). This is shaped in part by social hierarchies that value productive work (income-generating work) over reproductive work and dovetails well with and is reinforced by connotations of men as breadwinners for the household (Muñoz Boudet et al., 2013; Hillenbrand et al., 2015). The (re)production of the gender division of labor manifests within the household by, for example, upholding men and boys' access to free time outside of the household and women and girls' heavy domestic workload (Muñoz Boudet et al., 2013). Importantly, norms related to labor are prone to "naturalization," which renders them difficult and slow to change (Harper et al., 2020).

The productive and reproductive gender roles that play out within the household are then **reproduced at community level** (Muñoz Boudet et al., 2013). Norms around the division of labor do not just result in **less flexibility within the household**. In communities where masculine- or feminine-coded labor cannot not easily be substituted, these norms **negatively affect women's resilience to shifts in the value chain** (FAO, 2011). They also constrain flexibility outside the household. Thus, norms in this domain bring discussions on **women and girls' access to activities outside the home** to the fore (Muñoz Boudet et al., 2013). They affect women's potential to work outside the home and expectations of who does what, which relies on women multitasking at home while working for pay (Kantor, 2013). These norms drive the idea of men as breadwinners and render women's contributions to the household as "pocket money" (Petesch, 2022). These sets of norms also make it challenging for men who may want to yield space for women to engage in productive labor outside of the home.

> "How men and women relate to each other in the household is ruled by underlying assumptions about gender."

Highly restrictive norms for women dictate if and how their productive work is made visible. These include different expectations on men and women in terms of what it means to be a "good farmer" (Badstue et al., 2020b). Women being seen as "the shadows" or helpers of their husbands in carrying out agricultural activities – as opposed to being "farmers" – constrains not only recognition but also the potential returns from farming and **deflates women's financial agency** (Petesch et al., 2018a). Additionally, women are less likely than men to define their activities in agriculture as "work" (FAO, 2011). Meanwhile, the gender division of labor means women farmers have to **rely on the availability of men farmers** to perform key activities such as ploughing and spraying, which are often considered to be male activities (ibid.). It also hides the masculine-coded tasks in the value chain that are actually carried out by women (Hillenbrand et al., 2015). Furthermore, the division of labor tends to **confine women to the lower end of the value chain** and to informal sectors (Weeratunge et al., 2012). This, in turn, reduces access to support, financing, and capacity development (Njuki et al., 2016).

Time can be considered a form of "livelihood capital" (Hillenbrand et al., 2015). Women's care work and domestic responsibilities create **time poverty**, limiting engagement in other activities, including incoming-earning opportunities. This limit on available time leads to smaller margins for adaptation, be it to change agricultural practices or to respond to climate or environmental change. For example, the fact that more labor-intense low-value tasks tend to fall on women creates a disincentive to change agricultural practices, which in turn hampers climate adaptation (Jost et al., 2016). Time use and time poverty also affect access and interaction in trade, retail, and marketing. Many women farmers carry the double burden of farm work

and household and care work. This limits their potential to trade their own produce. One way to circumvent this is for women farmers to pool resources and take turns selling each others' produce and, through this, to free up time, while generating an income (Percy et al., 2022). This option could be available depending on if and how the norm of seclusion is operationalized.

Decorum and mobility

This norm domain refers to what is seen as appropriate in terms of presenting oneself publicly, as well as freedom of movement – covering the kinds of vehicles accepted, the time of day, and the need to have permission and/or a chaperone to enter certain spaces. Norms around decorum and mobility are most prevalent in the literature related to trade and markets, and cross-cut the AFS, at both the community and the systemic levels. Some reference is also made at the community level in discussions about (smallholder) production and processing. Norms related to decorum and mobility are better addressed in the literature higher up the value chain and at the community and systemic levels. No references are made at the household level, which is logical given that both aspects become important outside of the household.

> "Social and gender norms define responsibilities and where they are carried out, and who is to execute them. At community level, this often results in constraints on women's access to activities, including their ability to maintain wide social networks."

Often, norms related to decorum and mobility are communicated as "protection," like those constraining women from traveling alone or warning against the use of public transportation to avoid sexual harassment. These are examples of where decorum and mobility come together synergistically to limit women's freedom of movement (Koning et al., 2021) and even risk making public spaces less safe for women (Petesch, 2022). In poorer communities, where the need for income is a greater force, these norms can manifest differently, awarding women more mobility (Kantor and Kruijssen, 2014). Necessity is a strong driver. But this does not mean that actions are free from social punishment (Jahan and Farnworth, 2014). Beliefs around shame, honor, and dignity are reproduced by both men and women in maintaining social practices, even during (climate) disasters (Sultana, 2014).

A part of **household-level** negotiations relates to access to the "sphere outside of the farm" (Homelin, 2019). Social and gender norms define responsibilities and where they are carried out, and who is to execute them. At **community level**, this often results in constraints on women's access to activities, including their ability to maintain wide social networks (Gumucio et al., 2020; Quisumbing et al., 2014), whereas men are explicitly involved in community and governance structures (Lawless et al., 2019). This not only negatively affects women in the community at large but also can make women-headed households particularly vulnerable to punishment for going against norms upheld by the reference group, in having to carry out male-coded tasks such as direct interaction with men extension agents (Petesch, 2022). Again, the sanctions for going against these norms can be heavy.

Norms about decorum and mobility affect how tasks are divided between men and women across the AFS. For example, being able to travel freely will affect whether a woman (or a man) can go to the market to sell agricultural products, participate in a training, or work outside of the home. **Freedom of movement is directly linked to market access and economic empowerment** (Njuki et al., 2021). It will have impacts on the choice of and access to occupations, as well as where work can be carried out (Jahan and Farnworth, 2014). Limited mobility restricts women to less lucrative value chain nodes (Marcus, 2018). Key barriers for women in **trade**, **retail**, and **marketing** are norms that regulate with whom women can interact freely, including the restrictive norm of seclusion (Hillenbrand et al., 2015). Will a woman farmer be able to market her products and, if so, to which sphere of buyers? These norms dictate if and how far women farmers can travel to trade and if they will be reliant on a broker with access to transportation, both for herself but also for the goods (Petesch, 2022).

Restrictive norms related to mobility and decorum dominate the **processing node** (including factory work). This is because commercial processing most often requires work outside the home, perhaps even outside of the neighborhood or village (Jahan and Farnworth, 2014), and assumptions about the character and quality of women's work (Njuki et al., 2016; Kruijssen et al., 2018). Mobility norms determine whether women can take on processing jobs away from home, while norms related to decorum affect the conditions under which they are to carry out their work. The latter entails the risk of part-time contracts, low salaries, seasonality, irregular hours, and women being made vulnerable to workplace harassment and violence (Kantor and Kruijssen, 2014). Gendered perceptions about women's

"nature" as dedicated, flexible, meticulous, trustworthy, and compliant, and, above all, as cheaper labor, risk demoting them to lower-ranking jobs within processing (Kruijssen et al., 2018). Beyond gender, women's social background (class) and age affect their potential to navigate and access opportunities (Petesch et al., 2018a).

Bodily autonomy and freedom from violence

Norms related to freedom from violence and to bodily autonomy include the right to choose how many children one will have or to use contraception. This can influence a woman's agricultural productivity, engagement in certain activities within and across nodes of the value chain, and mobility. Intimate partner violence has debilitating impacts on women's mental health, confidence, and, in relation to AFS, ability to innovate. This norm domain is core to gender equality and well covered in the gender literature, and should be included in discussions across all socioecological levels and AFS components as it significantly affects agricultural and non-agricultural dimensions of rural life. Despite this, and although these norms are cross-cutting, the literature on AFS and norms does not cover this norm domain in depth. Some references come out in relation to (commercial) production or as a cross-cutting issue across the AFS, and at the systemic level (with a few references at the community level for commercial production). There are a handful of references referring to the household level in relation to consumption and at the systemic level in relation to processing.

Gendered social norms function to both promote and discourage behavior, including if, and what type of, violence is "acceptable" and under what circumstances (Edström et al., 2015; Social Norms Learning Collaborative, 2021). In turn, the level of prevalence of violence, including threats of it, intersects with the control measures that constrain the life of women and girls (e.g. norms on decorum and mobility) to become **a systemic barrier to women's empowerment in AFS** (Njuki et al., 2021). Many agricultural activities entail instances of workers being isolated from one another. This, together with job insecurity owing to short-term (or no) contracts and the fact that most supervision being carried out by men, makes women more vulnerable to violence (Henry and Adams, 2018).

Publications on work as farm labor, especially in commercial enterprises, point to negative gender norms, including related to **workplace harassment and sexual violence**. It is often seen as shameful for a woman to be the subject of sexual harassment (Koning et al., 2021). Expressions of sexual harassment can be seen as *"the way men interact with women"* within agriculture settings (Henry and Adams, 2018). A not uncommon perception is that women are responsible for being harassed or abused, and harassment seen as the way "men and women interact with each other" (ibid.). Meanwhile, women report only 5 per cent of their experiences of workplace harassment (ibid.). Harassment and violence are additional expression of norms often regulated and **sanctioned at a systemic level** (Edström et al., 2015).

Despite agricultural activities potentially making women more vulnerable to violence and despite gender-based violence being a systemic barrier to women's empowerment in AFS, this is an under-documented area and one needing much more attention.

Participation, leadership, and representation

One would expect to see reference to norms related to participation, leadership, and representation at the community (organizational) level and throughout the AFS but in particular where women are more active (e.g. in production or processing). They might take the form of participation or leadership in (women's) groups or cooperatives for production or processing or in political advocacy. However, remarkably few references were made to norms related to participation, leadership, and representation in the literature at the intersection between AFS and norms. These norms come out most strongly as cross-cutting AFS at the community and systemic levels. They are also referred to at (commercial) production nodes, and among support services and the enabling environment, both only at the systemic level. Weak reference is made to norms related to participation, leadership, and representation at the systemic level for production.

The poor coverage of these gender norms in the AFS literature suggests much more needs to be understood and likely changed. Coverage may be limited partly because much research to date on how social and gender norms operate in AFS has focused on the individual and household levels, rather than the community or systemic levels. In any case, the staggering quiet around this norm domain suggests a need to further explore it. This may be a key area for gender transformative research and interventions.

A couple of points emerging from the literature refer to power dynamics and shifts in **organizational structures**. The spaces where women are included must be set up to enable a shift in power dynamics that includes leadership opportunities (Bilfield et al., 2020) as well as opportunities for more active and vocal participation and representation. Addressing barriers – for example by educating women extension staff and supervisors – may clash with prevailing norms about women and girls' education, as well as the fact that women in these professions (e.g. in extension) are entering traditional and male-dominated organizational structures (Mangheni et al., 2019). There is a long way to go before gender equality in AFS extends to participation, leadership, and representation in agrifood organizations.

5.2 Gender norm prevalence by socioecological level

At the **household level**, the norms most referred to across the AFS are those related to **influence and decision-making**. Access to, ownership of, and control over productive resources; and gender division of labor come up for smallholder production only, and the bodily autonomy and freedom from violence domain has a few references in relation to consumption.

At the **community level**, the **access to, ownership of, and control over productive resources; gender division of labor**; and **influence and decision-making** norms all come out strongly across the AFS at all value chain nodes and as cross-cutting the AFS. The norm domains gender division of labor; and access to, ownership of, and control over productive resources are more present throughout the value chain (except for in processing and consumption) and influence and decision-making comes out most strongly in the literature in relation to support services and the enabling environment, as well as cross-cutting the AFS and in (smallholder) production.

The literature referring to the **systemic level** has the most variation in terms of the norm domains referred to. Cross-cutting all AFS components, **all six** norm domains are represented. Gender division of labor is the most referred to norm domain at the systemic level across all value chain nodes and for support services and the enabling environment as well as for cross-cutting the AFS. Access to, ownership of, and control over productive resources follows gender division of labor in terms of references at the systemic level (only not referred to at the processing and consumption nodes). Influence and decision-making norms are referred to less in the literature in relation to value chain nodes, and more often regarding support services and the enabling environment, as well as being a systemic cross-cutting norm domain.

5.3 Gender norm prevalence by agrifood system component

Importantly, publications at the intersection between AFS and norms overwhelmingly refer to the **production** and **primary processing** nodes of value chains. Studies on the production node cover the gender division of labor norm domain most comprehensively. This indicates that **gender division of labor** will be an important norm domain to measure in relation to production and primary processing.

For **smallholder production**, gender division of labor; and access to, ownership of, and control over productive resources predominate across all three socioecological levels. Alongside those two most referenced norm domains, influence and decision-making also comes up at all three levels for (smallholder) production, most strongly at the community level. Decorum and mobility come up (weakly) only at the community level for (smallholder) production. Participation, leadership, and representation; and bodily autonomy and freedom from violence do not come up at all.

In publications referring to **commercial production**, after gender division of labor, participation, leadership, and representation; and bodily autonomy and freedom from violence come out most strongly, both at the systemic level, with some mention of the latter also at the community level. Reference in the literature to influence and decision-making for commercial production is limited and only at the systemic level. Norms related to access to, ownership of, and control over productive resources come up to a limited extent at both the community level and the systemic level. Influence and decision-making does not come up at all in the studies of commercial production. No discussion on norms at the household level was found in the literature in relation to commercial production.

In publications on the **processing** node of agrifood value chains, gender division of labor at the systemic level predominates. Some references also touch on influence and decision-making at the community level as well as participation, leadership, and representation; and, bodily autonomy and freedom from violence at the systemic level. No references address norms at the household level in relation to processing, and very few touch on the community level.

For the **trade and market** nodes of agrifood value chains, access to, ownership of, and control over productive resources; gender division of labor; and influence and decision-making predominate at the community and systemic levels – gender division of labor particularly at the systemic level. No reference is made to norms at the household level in relation to trade and markets.

The least covered part of the AFS in our literature review relates to **consumption**. Very few publications refer to **consumption**. Those that do make limited reference to bodily autonomy and freedom from violence at the household level and gender division of labor at the systemic level. No references are made at the community level. Gendered social norms are also reflected in how food is distributed and consumed within a community or household. It is not uncommon that women and girls eat least and last, reflecting the gendered politics of food in the AFS value chain connected to assumptions of women needing fewer calories, and this can push them into malnutrition (UNDP, 2020). Ironically, it is as household

cooks and managers of household diet quality or while breastfeeding that many women are otherwise associated with this node in the value chain (Njuki et al., 2021). Much has been studied on gendered food taboos; however, these did not come strongly out in the literature scan, given the search criteria.

When it comes to **value chain support services** (e.g. extension, input supply, credit services) and the enabling environment (e.g. policy and financial services), influence and decision-making come up most strongly across the household, community, and systemic levels. Participation, leadership, and representation also come up at the systemic level. Fewer references are made to norms related to access to, ownership of, and control over productive resources (at the community and systemic levels) and gender division of labor at the systemic level.

In publications writing about an AFS as a whole – **cross-cutting** – influence and decision-making is the most referenced norm domain, showing up at all three levels. Norms related to access to, ownership of, and control over productive resources; participation, leadership, and representation; and influence and decision-making come out at both the community and the systemic levels, while gender division of labor; and bodily autonomy and freedom from violence come out only out at the systemic level.

5.4 Concluding reflections on the literature mapping

A few points are worth reiterating for attention in further a developing gender norms measure in AFS.

- Across all three socioecological levels (household, community, and systemic), **influence and decision-making; access to, ownership of, and control over resources**; and **gender division of labor** are the most visible in the literature. The systemic level shows the most variation.
- **Production and processing** are by far the most studied agrifood value chain nodes in relation to norms, and **gender division of labor** is the most referred to norm domain at these nodes.
- There is variation between the norm domains emerging for smallholder production versus commercial production. As one might expect, at the **smallholder production** node, it is **access to, ownership of, and control over resources**; and **influence and decision-making** that come out strongly after gender division of labor. For **commercial production, participation, leadership, and representation**; and **bodily autonomy and freedom from violence follow gender division** of labor.
- For **processing**, gender division of labor is most referred to norm domain.
- Finally, it is worth noting that, for **value chain support services** (e.g. extension, input supply, credit services) and in the enabling environment (e.g. policy, financial services), **influence and decision-making** come up most strongly **across all three socioecological levels** (household, community, and systemic). Participation, leadership, and representation also come up at the systemic level.

With this in mind, in measuring gendered social norms, one strategy would be to dig deeper on the most visible and most referenced socioecological levels, agrifood value chain nodes, and norm domains: influence and decision-making; access to, ownership of, and control over resources; and gender division of labor across all three socioecological levels; and gender division of labor for production (household, community, and systemic levels) and primary processing (systemic level) in particular.

Another strategy would be to explore the less studied elements, namely:

- **Trade**, including the market and retail nodes of agrifood value chains, where some references to access to, ownership of, and control over resources; gender division of labor; and influence and decision-making were found for the community and systemic levels but there is no reference to norms at the **household level**.
- **Consumption**, where the limited references found are to bodily autonomy and freedom from violence at the household level and gender division of labor at the systemic level. No references cover the **community level** in relation to consumers/consumption.

A third strategy in determining where to measure gendered social norms would be to focus on the systemic level. In which case, important to note is:

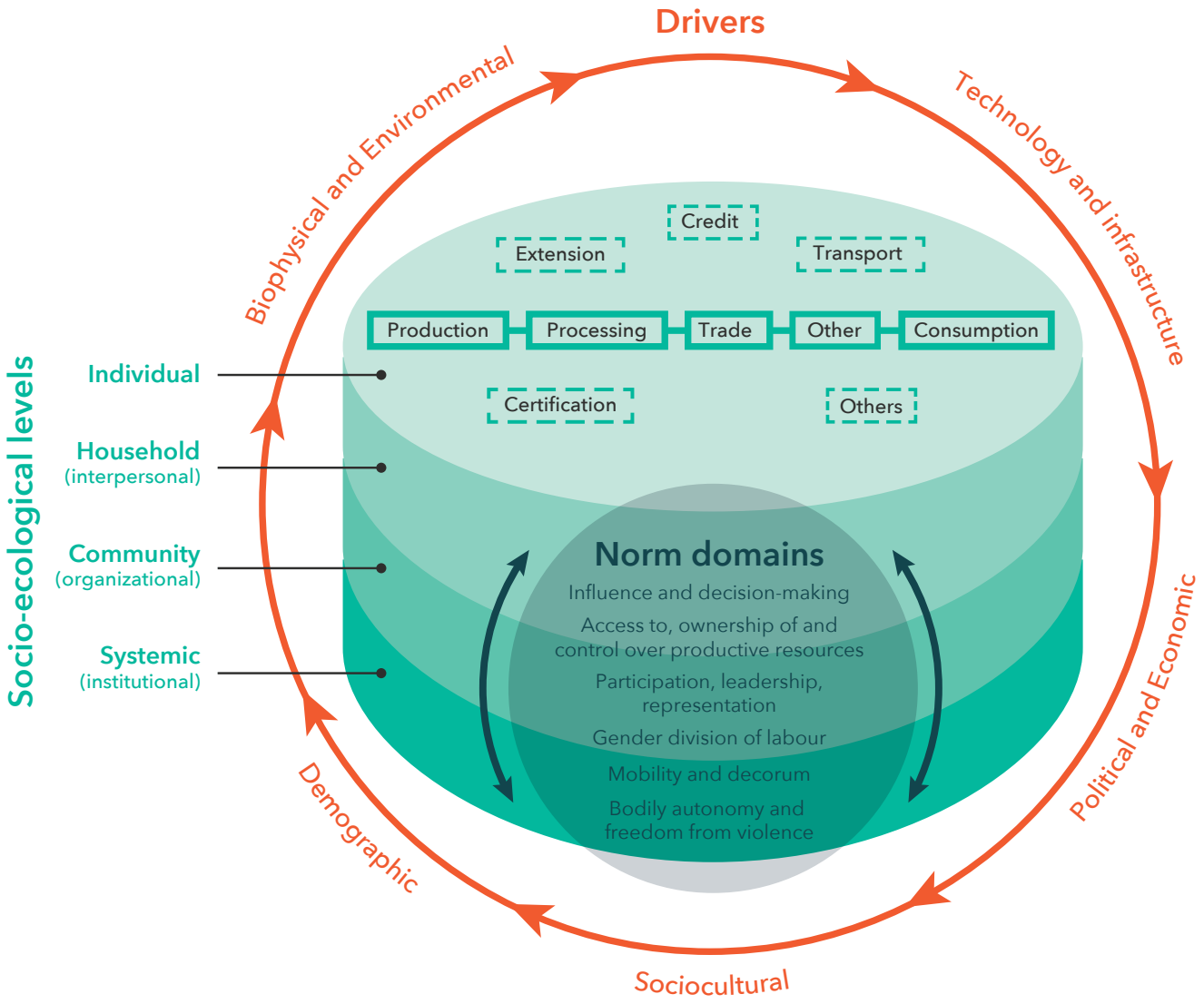
- The **systemic level** has the **most variation** in terms of the norm domains referred to, with all six norm domains represented across all actor groups.
- **Gender division of labor** is the most referred to norm domain at the systemic level across all value chain actors and supporters and comes out as cross-cutting the AFS also.
- Access to, ownership of, and control over resources is the second most referred to norm domain at the systemic level, though it is not referred to at the processing and consumption nodes.
- **Influence and decision-making** is a systemic and cross-cutting norm domain.

These insights and observations are intended to help shape the further development of measures that can capture changes in gendered social norms in AFS.

6. Conceptual framework

Based on the critical literature review and informed by the foundational layers laid out in Section 2, here we bring together a conceptual framework that illustrates the dynamics of gendered social norms in AFS. The development of this conceptual framework was guided by the question: **Which social and gender norms manifest at different socioecological levels among AFS actors? And, how does this happen?** We prioritized gendered social norms that either hamper or support gender equality and women's economic resilience to climate change within AFS. To help in understanding these dynamics, the conceptual framework brings together four components: drivers of an AFS; AFS elements; socioecological levels; and key norm domains. We illustrate these four components and their relationships in Figure 3 below. The arrows from the norm domains up through the socioecological levels express the dynamic nature of norms: their fluidity in being contested, negotiated, maintained, and reproduced across and through socioecological levels.

Figure 3: Gendered social norms in agrifood systems



A Samburu mother enters nutrition data into an app.
Photo: © ILRI/Kabir Dhanji.

Drivers of an agrifood system that shape and is shaped by gendered social norms

This outer circle of the visual depicts the macro-level influences that characterize the context for an AFS (de Brauw et al., 2019; Njuki et al., 2021) – namely, biophysical and environmental, technology and infrastructure related, political and economic, sociocultural, and demographic. These drivers, particularly macroeconomics, national agendas and policies, and rules and legislation may affect how and where norms manifest in an AFS. Many of these are beyond the remit of most AFS actors, meaning that, while these drivers shape the AFS and characterize the context, actors cannot control them. These drivers shape and are shaped by gendered social norms.

Agrifood system elements

The top layer at the center of the visual presents the elements of an AFS. This includes the nodes of a generic AFS – production, processing, trade, consumption (others may be relevant depending on the value chain being studied) – which are encircled along a central line denoting a value chain. Services supporting AFS functioning, such as extension and credit services, certification, financial services, or transportation services, are denoted with a broken-lined bubble.

Socioecological levels where gender norms play out

The socioecological levels in the visual represent where gender norms are reproduced, shaped, negotiated, and so on – namely, household (interpersonal), community (organizational), and systemic (institutional). AFS actors (e.g. at each node of the value chain and working in service provision) comprise the individual level. Underneath this is the household, where individuals internalize and learn about acceptable social norms but also interact with others to maintain, reproduce, negotiate, contest, and adhere to them in interpersonal relationships. While embodied in individuals and enacted in households, social and gender norms represent values that are collectively held by a community or more broadly in society. The next level – community – provides weight to the norms and with this the fear of consequences (sanctions) for non-conformity and rewards for compliance. This includes within organizations. Finally, the systemic level refers to gendered social norms that cut across societal levels and are embedded in other institutions like customary and national laws, cultural expectations, and religious beliefs (for example).

Norm domains

The fourth and core component of this conceptual framework is the norm domains that operate at different socioecological levels and across different elements of AFS, influencing participation in and benefits from an AFS. Building on the foundation of the guide developed by the *JP on Gender Transformative Approaches for Nutrition and Food Security* (FAO et al., 2022) and others,[13] we distinguish six domains – or types – of norms relevant to AFS: influence and decision-making; access to, ownership of, and control over resources; gender division of labor (and workload); mobility and decorum; bodily autonomy and freedom from violence; and participation, leadership, and representation. Annex 1 presents examples of norms related to each of these six norm domains.

13. In particular Leon-Himmelstine et al. (2021) and Branisa et al. (2014).

A CIMMYT field worker demonstrates the emasculation of a wheat spike. Photo: © Alfonso Cortes/CIMMYT.

7. Conclusions

The conceptual framework laid out in this report captures the dimensions that need to be considered in order to understand gendered social norms in AFS. A next question will be how to use the insights from this conceptual framework and critical literature review to inform the measurement of norms in AFS. The literature points to the complexities of measuring norms, including that:

- **Norms are multidimensional:** Norms affect different dimensions of disparity – **material** dimensions related to nutrition, education, and health; **relational** dimensions such as the experience of violence and mobility; and **subjective** dimensions related to aspirations, like happiness (Weeratunge et al., 2012).

- **Norms are fluid:** The reproduction, contestation, and negotiation of norms are ongoing through everyday social interactions. In addition, because changes in gender norms often come about as a result of socioeconomic or political events or crises (e.g. male out-migration, war, natural disaster, disease outbreaks), these changes can revert post-crisis (Badstue et al., 2018a). This fluidity adds a complicating element to measurement related to both time and reliability of results over time.

- **Normative change is an uneven process:** The complex, messy, and unpredictable rhythm and pathways for normative change processes (Marcus and Harper, 2014) and their variable impacts are a challenge for measurement.

- **Measures often focus on the individual:** A critique of norm measurements is that they tend to focus on the individual as the "key agent for change" rather than tackling structural impediments, including resistance to prevailing inequalities and hierarchies (Wazir, 2022).

- **Deciding what to measure is tricky:** It is difficult to identify and measure change in social norms from behavioral observations alone. Individuals' beliefs about who the reference group is, beliefs about what others do, and beliefs about what others approve of, must be measured instead (Mackie et al., 2015).

Recognizing the complexity of norms and their measurement implies sensitivity to potential pitfalls such as oversimplification, the uncertainty of transferability between different contexts, and, ultimately, the risk of reinforcing a predominant framing and prevailing expectations related to gender roles (Jost et al., 2016; Wazir, 2022).

Despite the many challenges and complexities, the relevance of capturing normative changes at household, village, regional, and national levels only gets stronger as gender transformative methodologies are used in AFS (Lopez et al., 2022). That is to say that the complexity should be seen as a challenge rather than an insurmountable obstacle. A number of papers propose ways to address these complexities.

Start broad

In order to obtain a comprehensive view of norms in a particular community, and how people's attitudes and by extension their practices might be changing, a wide range of insights as to what people think and do should be captured at the outset of research or an intervention (Bill and Melinda Gates Foundation, 2017). Broad measures help detect signs of shifts in norms and, more importantly, can help identify the change process (Social Norms Learning Collaborative, 2021). Some norm domains and related gender norms sit neatly within an AFS (e.g. access to, ownership of, and control over productive resources); others underlie or cut across economic and social sectors and are more systemic in nature (e.g. decorum and mobility; bodily autonomy and freedom from violence). To measure gendered social norms in AFS, it is important to look beyond the AFS to the underlying norms that constrain or catalyze women's economic resilience to climate change. Norms only related closely to an AFS or a specific value chain will be unlikely to capture the full picture as to how gender norms are affecting women's economic resilience to climate change.[14] Taking the wisdom of these researchers to heart, to understand how norms are affecting economic resilience to climate change we must go beyond economic engagement to the factors facilitating or constraining it. This underscores the critical importance of understanding the dynamics of systemic, underlying, and cross-cutting gender norms. These affect engagement in the AFS but also women (and men) as whole people and not just as instruments for value chain success or economic progress.

Which gender norms to measure in AFS?

From the literature review, the gender division of labor, and reproductive (or household) labor and how it dovetails with productive work in particular, stands out as a critical norm domain to measure and track in AFS. The attention to gender norms in relation to the gender division of labor in the literature was striking. However, different next steps are possible: one option is to trace one norm's prevalence across different parts of the AFS. That said, the prevalence of a norm is not necessarily reflective of its strength, though many indices have focused on measuring prevalence rather than their influence (Cislaghi and Heise, 2018). Another way to progress would be to dig deeply where norms are most visible in a particular context and/or in the literature. Choosing norms that are most amenable to change (and where they are more amenable to change) is another viable route. For example, gender norms in smallholder agricultural households may be harder to change compared with those in productive work or the marketplace. As such, focusing on norms in a workplace (factory, processing plant) or in a market is a possible way forward. However, an argument can be made for measuring change in enabling norms alongside restrictive ones. That would be another path forward.

Take institutional, sociocultural, and structural dimensions into account

Tools developed to measure social norms must take into account the specificities of gender dynamics in different sociocultural contexts (Bill and Melinda Gates Foundation, 2017; Lawless et al., 2019). Wider social, economic, and political drivers (Harper and Marcus, 2018) and social processes and structures (Koning et al., 2021) affect gender norms. The perception of how relevant and important norms are in any given context is influenced by systemic drivers embedded in institutions and environments (Bill and Melinda Gates Foundation, 2017). Structural barriers and interests that give power to norms are important to acknowledge and capture. Key is how institutions (e.g. in government policies, organizational regulations, and other societal structures) influence normative thinking at the systemic level, as well as how they shape norms at community and household levels. Norms need to be interpreted through their relationship to these other factors (Social Norms Learning Collaborative, 2021. Addressing institutional and structural dimensions also aligns with the feminist and anthropological school of thought vis-à-vis gender norms. Further, shifting analysis and related action beyond the individual level addresses the critical gap in many conceptualizations of gender equality and women's empowerment in the agriculture and environmental sectors (Pyburn and van Eerdewijk, 2021).

14. Several researchers concur that an instrumental market-based approach can limit potential advances in women's empowerment and towards gender equality, including Ihalainen et al. (2021): "it is worth questioning the extent to which we can realistically expect women's incorporation into commercial markets to address broader societal inequalities or power imbalances, particularly when addressing them may run counter to the prevailing market logic or risk a trade off with other objectives." This is echoed by others, including Farhall and Rikards (2021), who comment on the "'stickiness' of market-oriented and instrumental approaches to women is notable and existing narratives around Gender Dev. tend to only reveal part of the agricultural development story and eschew the structural drivers of the problems being addressed," and Collins (2018), who writes that CSA "will not necessarily be relevant to, or beneficial for women … CSA is a compilation of market-led and productivity-oriented practices that are antithetical to feminist approaches in agriculture for development."

Bui Van Ben (left) and Dinh Thi Hong (right), Muong ethnic people grow rice and keep pigs, buffalos, chickens in their house to generate more incomes. Photo: © ILRI/Vu Ngoc Dung.

Determine the "right" level of analysis, knowing that norms are in flux, synergistic, and entwined

Entrenched gender norms are often kept in place by other social norms that organize society at large, but they also relax, evolve, and change making what was once improbable now possible (Muñoz Boudet et al., 2013). One changed norm can drive further change (Harper et al., 2020). As such, it is important to understand how norms interact (Edström et al., 2015). Collectively challenging norms through the articulation of alternative visions for societies and communities triggers more challenges; and the more challenges made to prevailing norms, the faster change can happen (Harper et al., 2020). This requires taking into account the multiple scales – household (interpersonal), community (organizational), systemic (institutional) – where gender norms are (re)produced (Morgan, 2014). Identifying the right level to analyze social norms data is key. For example, norms applied in one reference group might not be relevant to describe behavior at an aggregated level (Cislaghi and Heise, 2016). Much of the research on gender transformative change, GTAs in particular, has focused on the individual and household (interpersonal) levels. However, the interactions and synergies between and across individual–household–community–systemic levels are critical for understanding gender norms. The organizational, community, and systemic levels need more attention. Assessing normative constraints not only at local levels (e.g. household, community) but also within institutions at the systemic level is critical.

Assess the "right" reference group

It is important to take into account that reference groups change based on the issue at hand, making it key to identify the most influential reference group for the particular norm domain in question. People are likely influenced by several reference groups across different norm domains at the same time (Alexander-Scott, 2016). An additional dimension to take into account is the impact of social desirability, since it is not uncommon for the respondent, rather than giving an answer reflecting their true belief, to opt for an answer they believe that the questioner wants to hear (Mackie et al., 2015). One way to capture normative expectations within a specific group is to include questions about sanctions/punishment for breaking norms (Bicchieri and Penn Social Norms Training and Consulting Groups, 2015).

Use mixed methods approaches

The design of norm measures should be informed by research to allow for an in-depth understanding of the interactions between different constellations of norms in different contexts (Cislaghi et al., 2018). For a rich understanding of the sociocultural context in which norms operate, complementary (qualitative) methods and instruments can be used (Bill and Melinda Gates Foundation, 2017; Lawless et al., 2019). Combining the richness and context-specificity of qualitative research with the generalizability and comparability of qualitative measures will provide more useful, robust insights. However, when planning to use quantitative methods to gauge shifts in norms, it is recommended

A woman carrot picker from Brazil.
Photo: © Biodiversity International/Raul Golinelli.

to be aware of bias towards prioritizing areas that are easily measured rather than focusing interventions that have a more transformative approach but that perhaps do not lend themselves to being measured as easily (Mosedale, 2005). Being able to reflect the often-elusive attitudes and relationships, and their impact on social norms, stands at the center of the challenge (Morgan, 2014).

Bring in a time element (e.g. through longitudinal analysis)

Change in norms occurs slowly, which is why preparation to measure over a longer period of time and at several occasions is recommended (Social Norms Learning Collaborative, 2021). At the same time, considering that in most social contexts systems of oppressive patriarchy go back millennia, the changes in social norms that can be detected today can also be perceived as relatively swift (Harper et al., 2020). Many changes are part of longer-term processes in social change and can be the result of intentional interventions, accompanied by unexpected events that provide opportunities for change (Harper and Marcus, 2018). To increase understanding of what measures work to drive sustainable change and prevent backlash, repeated surveys over a longer period of time can be used (Harper et al., 2020). This also reflects characteristics of gender norms that are replicated and reinforced over many years, even decades. Tools that measure over longer time spans serve to take this into account (Morgan, 2014). Last, change ebbs and flows, and rarely is linear or moves in only one direction, which is why exploring different routes and paces to change is paramount (Harper et al., 2020).

A final word

In conclusion, conceptualizing (and measuring) gender norms in AFS should not be a barrier for agricultural research and development and for actors in AFS to engage in transformative (normative) change processes. This challenge offers the opportunity for real and lasting change that supports significant advances towards greater gender equality and increased economic resilience to climate change. Delving into the complexity of gender norms holds promise for transformative change towards more equitable and resilient AFS.

References

Alexander-Scott, M., Bell, E., & Holden, J. (2016). Guidance note: Shifting social norms to tackle violence against women and girls (VAWG). London: DFID, VAWG Helpdesk.

Alkire, S., Meinzen-Dick, R., Peterman, A., Quisumbing, A. R., Seymour, G., & Vaz, A. (2013). The Women's Empowerment in Agriculture Index. Oxford: Oxford Poverty and Human Development Initiative.

Amin, A., Kågesten, A., Adebayo, E., & Chandra-Mouli, V. (2018). Addressing gender socialization and masculinity norms among adolescent boys: Policy and programmatic implications. Journal of Adolescent Health, 62(3), S3–S5. https://doi.org/10.1016/j.jadohealth.2017.06.022

Aregu, L., Choudhury, A., Rajaratnam, S., Locke, C., & McDougall, C. (2018). Gender norms and agricultural innovation: Insights from six villages in Bangladesh. Journal of Sustainable Development, 11(4), 270–287. https://doi.org/10.5539/jsd.v11n4p270

Arora-Jonsson, S. (2011). Virtue and vulnerability: Discourses on women gender and climate change. https://www.cifor.org/fileadmin/subsites/crp/discussion/pdf/virtue_vulnerability.pdf

Badstue, L., Petesch, P., Williams, G., & Umantseva, A., with Moctezuma, D. (2017). Gender and innovation processes in wheat-based systems. GENNOVATE Report to the CGIAR Research Program on Wheat. GENNOVATE Research Paper. Mexico City: CIMMYT. https://gennovate.org/wp-content/uploads/2018/10/CRP-WHEAT-Gennovate-Report.pdf

Badstue, L., Lopez, D. E., Umantseva, A., Williams, G., Elias, M., Farnworth, C. R., Rietveld, A., Njuguna-Mungai, E., Luis, J., Najjar, D., & Kandiwa, V. (2018a). What drives capacity to innovate? Insights from women and men small-scale farmers in Africa, Asia, and Latin America. Journal of Gender, Agriculture and Food Security, 3(1), 54–81.

Badstue, L., Petesch, P., Feldman, S., Prain, G., Elias, M., & Kantor, P. (2018b). Qualitative, comparative, and collaborative research at large scale: An introduction to GENNOVATE. Journal of Gender, Agriculture and Food Security, 3(1), 1–27.

Badstue, L., Elias, M., Kommerell, V., Petesch, P., Prain, G., Pyburn, R., & Umantseva, A. (2020a). Making room for manoeuvre: Agender norms to strengthen the enabling environment for agricultural innovation. Development in Practice, 30(4), 541–547.

Badstue, L., Petesch, P., Farnworth, C. R., Roeven, L., & Hailemariam, M. (2020b). Women farmers and agricultural innovation: Marital status and normative expectations in rural Ethiopia. Sustainability, 12(23), 9847. https://doi.org/10.3390/su12239847

Beuchelt, T. D. & Badstue, L. (2013). Gender, nutrition- and climate-smart food production: Opportunities and tradeoffs. Food Security, 5, 709–721.

Bicchieri, C. & Mercier, H. (2014). Norms and beliefs: How change occurs. Cambridge: Cambridge University Press.

Bicchieri, C. & Penn Social Norms Training and Consulting Group (2015). Why do people do what they do?: A social norms manual for Zimbabwe and Swaziland. Toolkit Guide. Florence: UNICEF Innocenti. www.unicef-irc.org/research/pdf/429-Social-Norms-Manual-ESARO.pdf

Bilfield, A., Seal, D., & Rose, D. (2020). Brewing a more balanced cup: Supply chain perspectives on gender transformative change within the coffee value chain. International Journal on Food System Dynamics, 11(1), 26–38. https://doi.org/10.18461/ijfsd.v11i1.37

Bill and Melinda Gates Foundation (2017). What gets measured matters: A methods note for measuring women and girls' empowerment. Bill and Melinda Gates Foundation. www.gatesgenderequalitytoolbox.org/wp-content/uploads/BMGF_Methods-Note-Measuring-Empowerment-1.pdf

Bradford, K. & Katikiro, R. E. (2019). Fighting the tides: A review of gender and fisheries in Tanzania. Fisheries Research, 216, 79–88. https://doi.org/10.1016/j.fishres.2019.04.003

Branisa, B., Klasen, S., Ziegler, M., Drechsler, D., & Jütting, J. (2014). The institutional basis of gender inequality: The Social Institutions and Gender Index (SIGI). Feminist Economics, 20(2), 29–64. https://doi.org/10.1080/13545701.2013.850523

Campbell, H. & Bell, M. (2000). The question of rural masculinities. Rural Sociology, 65, 532–546.

Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. Journal of Personality and Social Psychology, 58(6), 1015.

Cislaghi, B. & Heise, L. (2016). Measuring gender-related social norms: Learning Report 1. Learning Group on Social Norms and Gender-related Harmful Practices of the London School of Hygiene and Tropical Medicine. http://strive.lshtm.ac.uk/system/files/attachments/STRIVE%20Norms%20Report%201.pdf

Cislaghi, B. & Heise, L. (2018). Theory and practice of social norms interventions: Eight common pitfalls. Globalization and Health, 14(1). https://doi.org/10.1186/s12992-018-0398-x

Cislaghi, B. & Heise, L. (2020). Gender norms and social norms: Differences, similarities and why they matter in prevention science. Sociology of Health and Illness, 42(2), 407–422.

Cislaghi, B., Manji, K., & Heise, L. (2018). Social norms and gender-related harmful practices. Learning Report 2: Theory in support of better practice. Learning Group on Social Norms and Gender-related Harmful Practices of the London School of Hygiene and Tropical Medicine. http://strive.lshtm.ac.uk/system/files/attachments/STRIVE%20Norms%20Report%202.pdf

Cislaghi, B., Denny, E. K., Cissé, M., Gueye, P., Shrestha, B., Shrestha, P. N., Ferguson, G., Hughes, C., & Clark, C. J. (2019). Changing social norms: The importance of "organized diffusion" for scaling up community health promotion and women empowerment interventions. Prevention Science, 20(6), 936–946. https://doi.org/10.1007/s11121-019-00998-3

Cohen, P. J., Lawless, S., Dyer, M., Morgan, M., Saeni, E., Teioli, H., & Kantor, P. (2016). Understanding adaptive capacity and capacity to innovate in social-ecological systems: Applying a gender lens. Ambio, 45, 309–321. https://doi.org/10.1007/s13280-016-0831-4

Cole, S. M., Kantor, P., Sarapura, S., & Rajaratnam, S. (2014). Gender-transformative approaches to address inequalities in food, nutrition and economic outcomes in aquatic agricultural systems. Working Paper AAS-2014-42. Penang: CGIAR Research Program on Aquatic Agricultural Systems. https://www.worldfishcenter.org/publication/gender-transformative-approaches-address-inequalities-food-nutrition-and-economic

Cole, S.M., Puskur, R., Rajaratnam, S., & Zulu, F. (2015). Exploring the intricate relationship between poverty, gender inequality, and rural masculinity: A case study from an aquatic agricultural system in Zambia. Culture, Society and Masculinities, 7(2), 154–170. https://hdl.handle.net/20.500.12348/235

Cole, S. M., Kaminski, A. M., McDougall, C., Kefi, A. S., Marinda, P. A., Maliko, M., & Mtonga, J. (2020). Gender accommodative versus transformative approaches: A comparative assessment within a post-harvest fish loss reduction intervention. Gender, Technology and Development, 24(1), 48–65. https://doi.org/10.1080/09718524.2020.1729480

Cole, S. M., Feleke, S., Manda, J., Gondwe, T., & Akinwale, G. (2021). Who does what and why? Intra-household roles and explanatory models for sourcing soybean seed in Malawi. Outlook on Agriculture, 50(3). https://doi.org/10.1177/00307270211033918

Collins, A. (2018) Saying all the right things? Gendered discourse in climate-smart agriculture. The Journal of Peasant Studies, 45(1), 175–191. DOI: 10.1080/03066150.2017.1377187

Cornwall, A. & J. Edwards. (2014). Feminisms, empowerment and development: Changing women's lives. London: Zed Books.

De Brauw, A., van den Berg, M., Brouwer, I., Snoek, H., Vignola, R., Melesse, M., Lochetti, G., van Wagenberg, C., Lundy, M., d'Hotel, E., & Ruben, R. (2019). Food system innovations for healthier diets in low and middle-income countries. Discussion Paper 01816. Washington, DC: IFPRI.

Djoudi, H., Locatelli, B., Vaast, C., Asher, K., Brockhaus, M., & Basnett Sijapati, B. (2016). Beyond dichotomies: Gender and intersecting inequalities in climate change studies. Ambio, 45, 248–262.

Edström, J., Hassink, A., Shahrokh, T., & Stern, E. (Eds.) (2015). Engendering men: A collaborative review of evidence on men and boys in social change and gender equality. EMERGE Evidence Review. Promundo-US, Sonke Gender Justice, and IDS.

Elias, M., Mudege, N., Lopez, D. E., Najjar, D., Kandiwa, V., Luis, J., Yila, J., Tegbaru, A., Ibrahim, G., Badstue, L. B., Njuguna-Mungai, E., & Bentaibi, A. (2018). Gendered aspirations and occupations among rural youth, in agriculture and beyond: A cross-regional perspective. Journal of Gender, Agriculture and Food Security, 3(1), 82–107.

FAO (Food and Agriculture Organization of the United Nations) (2011). The state of food and agriculture: Women in agriculture, closing the gender gap for development. Rome: FAO.

FAO (Food and Agriculture Organization of the United Nations), IFAD (International Fund for Agricultural Development), & WFP (World Food Programme) (2020). Gender transformative approaches for food security, improved nutrition and sustainable agriculture: A compendium of fifteen good practices. Rome: FAO.

FAO, IFAD, & WFP (2022). Guide to formulating gendered social norms indicators in the context of food security and nutrition. Rome: FAO. https://doi.org/10.4060/cc0673en

Farhall, K. & Rickards, L. (2021). The "gender agenda" in agriculture for development and its (lack of) alignment with feminist scholarship. Frontiers in Sustainable Food Systems, 5, 573424.

Farnworth, C., Sundell, M. F., Nzioki, A., Shivutse, V., & Davis, M. (2013). Transforming gender relations in agriculture in sub-Saharan Africa. Stockholm: Swedish International Agricultural Network Initiative. www.siani.se/wp-content/uploads/2013/09/siani-2013-transforming-gender-relations-agriculture-africa.pdf

Farnworth, C., Jafry, T., Rahman, S., & Badstue, L.B. (2020). Leaving no one behind: How women seize control of wheat-maize technologies in Bangladesh. Canadian Journal of Development Studies, 41(1), 20–39. https://doi.org/10.1080/02255189.2019.1650332

Galiè, A. Teufel, N., Korir, L., Baltenweck, I., Webb Girard, A., Dominguez-Salas, P., & Young, K. (2019). The Women's Empowerment in Livestock Index. Social Indicators Research, 142, 799–825. https://doi.org/10.1007/s11205-018-1934-z

Galiè, A., Najjar, D., Petesch, P., Badstue, L., & Farnworth, C. R. (2022). Livestock innovations, social norms, and women's empowerment in the Global South. Sustainability, 14(7), 3741. https://doi.org/10.3390/su14073741

Gammage, S., Kabeer, N., & van der Meulen Rodgers, Y. (2016). Voice and agency: Where are we now? Feminist Economics, 22(1), 1–29.

Glazebrook, T., Noll, S., & Opuki, E. (2020). Gender matters: Climate change, gender bias and women's farming in the Global South and North. Agriculture, 10, 267. doi.10.3390/agriculture10070267

Greene, M. E. & Levack, A. (2010). Synchronizing gender strategies: A cooperative model for improving reproductive health and transforming gender relations. Interagency Gender Working Group. https://www.igwg.org/wp-content/uploads/2017/06/synchronizing-gender-strategies.pdf

Gumucio, T., Alves, M. D. A., Orentlicher, N., & Hernández Ceballos, M. C. (2018). Analysis of gender research on forest, tree and agroforestry value chains in Latin America. Forests, Trees and Livelihoods, 27(2), 69–85.

Gumucio, T., Hansen, J., Huyer, S., & van Huysen, T. (2020). Gender-responsive rural climate services: A review of the literature. Climate and Development, 12(3), 241–254.

Harper, C. & Marcus, R. (2018). What can a focus on gender norms contribute to girls' empowerment? In C. Harper, N. Jones, A. Ghimire, R. Marcus, & G. K. Bantebya (Eds.). Empowering adolescent girls in developing countries: Gender justice and norm change. London: Routledge.

Harper, C., Marcus, R., George, R., D'Angelo S., & Samman, E. (2020). Gender, power and progress: How norms change. London: ALIGN/ODI. www.alignplatform.org/gender-power-progress#:~:text=Changes%20in%20gender%20norms%20often,achieve%20significant%20change%20or%20power

Heise, L., Greene, M. E., Opper, N., Stavropoulou, M., Harper, C., Nascimento, M., & Zewdie, D. (2019). Gender inequality and restrictive gender norms: Framing the challenges to health. The Lancet, 393(10189), 2440–2454.

Henry, C. & Adams, J. (2018). Spotlight on sexual violence and harassment in commercial agriculture: Lower and middle income countries. Research Department Working Paper 31. Geneva: ILO. www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_630672.pdf

Hillenbrand, E., Karim, N., & Wu, D. (2015). Measuring gender-transformative change: A review of literature and promising practices. Washington, DC: CARE USA. https://gender.cgiar.org/publications-data/measuring-gender-transformative-change-review-literature-and-promising-0

Holmelin, N. B. (2019). Competing gender norms and social practice in Himalayan farm management. World Development, 122, 85–95. https://doi.org/10.1016/j.worlddev.2019.05.018

Huyer, S. (2021). Building farmers' resilience to climate change means addressing gender inequalities. CGIAR GENDER Platform Evidence Explainer.

Huyer, S. & Partey, S. (2020). Weathering the storm or storming the norms? Moving gender equality forward in climate-resilient agriculture. Climatic Change, 158(1), 1–12.

Ihalainen, M. ,S. Shaikh, G. Mujawamariya, S. Mayanja, S. Adetonah, K. Tavenner, and M. Elias (2021). Promise and contradiction: value chain participation and women's empowerment. Chapter 4 in Pyburn, R. and A. van Eerdewijk (eds.) (2021). Advancing gender equality through agricultural and environmental research: Past, present, and future. Washington, DC: IFPRI.

IRH (Institute for Reproductive Health) (2020). Social Norms Exploration Tool. Washington, DC: IRH, Georgetown University.

Jahan, R. & Farnworth, C. R. (2014). Literature review on gender and wider social norms in south west Bangladesh. Penang: WorldFish.

Jayachandran, S. (2015). The roots of gender inequality in developing countries. Annual Review of Economics 7, 63–88. https://doi.org/10.1146/annurev-economics-080614-115404.

Johnson, N. L., Kovarik, C., Meinzen-Dick, R., Njuki, J., & Quisumbing, A. (2016). Gender, assets, and agricultural development: Lessons from eight projects. World Development, 83, 295–311. https://doi.org/10.1016/j.worlddev.2016.01.009

Jost, C., Ferdous, N., & Spicer, T. D. (2016). Gender and inclusion toolbox: Participatory research in climate change and agriculture. CGIAR Research Program on Climate Change, Agriculture and Food Security and CARE International and the World Agroforestry Centre. https://hdl.handle.net/10568/45955

Kantor, P. (2013). Transforming gender relations: Key to positive development outcomes in aquatic agricultural systems. CGIAR Research Program on Aquatic Agricultural Systems. https://digitalarchive.worldfishcenter.org/bitstream/handle/20.500.12348/785/AAS-2013-12.pdf?sequence=1andisAllowed=y

Kantor, P. & Apgar, M. (2013). Transformative change in the CGIAR Research Program on Aquatic Agricultural Systems.

Kantor, P. & Kruijssen, F. (2014). Informal fish retailing in rural Egypt: Opportunities to enhance income and work conditions for women and men. Penang: WorldFish. http://pubs.iclarm.net/resource_centre/2014-51.pdf

Kawarazuka, N., Doss, C., Farnworth, C., & Pyburn, R. (2022). Myths about the feminization of agriculture: Implications for global food security. Global Food Security. Amsterdam: Elsevier.

Kazianga, H. & Wahhaj, Z. (2013). Gender, social norms, and household production in Burkina Faso. Economic Development and Cultural Change, 61(3). https://doi.org/10.1086/669258

Koning, A., Ledgerwoord, J., & Singh, N. (2021). Addressing gender norms to increase financial inclusion: Designing for Impact. Washington, DC: CGAP. http://www.cgap.org/sites/default/files/publications/2021_10_Technical_Guide_Gender_Norms.pdf

Kruijssen, F., McDougall, C. L., & van Asseldonk, I. J. M. (2018). Gender and aquaculture value chains: A review of key issues and implications for research. Aquaculture, 493, 328–337. https://doi.org/10.1016/j.aquaculture.2017.12.038

Lambrecht, I. (2016). "As a husband I will love, lead, and provide": Gendered access to land in Ghana. World Development, 88, 188–200. https://www.sciencedirect.com/science/article/abs/pii/S0305750X16304260

Lawless, S., Cohen, P., McDougall, C., Orirana, G., Siota, F., & Doyle, K. (2019). Gender norms and relations: Implications for agency in coastal livelihoods. Maritime Studies, 18(3), 347–358. https://doi.org/10.1007/s40152-019-00147-0

Learning Collaborative to Advance Normative Change (2019). Resources for measuring social norms: A practical guide for program implementers. Washington, DC: IRH, Georgetown University.

Leeuwis, C., Boogard, B., & Atta-Krah, K. (2021). How food systems change (or not): Governance implications for system transformation processes. Food Security, 13, 761–780. https://doi.org/10.1007/s12571-021-01178-4

Leon-Himmelstine, C., Phiona, S., Löwe, A., Plank, G., & Vu, N. (2021). Young women in the agricultural sector in Uganda Lessons from the Youth Forward Initiative. London: ODI. https://odi.org/en/publications/young-women-in-the-agricultural-sector-in-uganda-lessons-from-the-youth-forward-initiative/

Locke, C., Muljono, P., McDougall, C., & Morgan, M. (2017). Innovation and gendered negotiations: Insights from six small-scale fishing communities. Fish and Fisheries, 18(5), 943–957. https://doi.org/10.1111/faf.12216

Lopez D. E., Frelat R., & Badstue, L. B. (2022). Towards gender-inclusive innovation: Assessing local conditions for agricultural targeting. PLoS ONE, 17(3): e0263771. https://doi.org/10.1371/journal.pone.0263771

Lowery, S., Nackoney, J., Sommerville, M., and Khan, A. (2021). Gender norms and women's land rights: How to identify and shift harmful gender norms in the context of land and natural resources. Brief. Washington, DC: USAID. https://www.land-links.org/wp-content/uploads/2021/09/ILRG-Gender-Norms-and-Womens-Land-Rights-Brief_final.pdf

Mackie, G., Moneti, F., Shakya, H., & Denny, E. (2015). What are social norms? How are they measured? San Diego, CA: University of California, San Diego.

Mangheni, M. N., Tufan, H. A., Nkengla, L., Aman, B. O., & Boonabaana, B. (2019). Gender norms, technology access, and women farmers' vulnerability to climate change in sub-Saharan Africa. In Y. Bamutaze, S. Kyamanywa, B. Singh, G. Nabanoga, G., & R. Lal (Eds.). Agriculture and ecosystem resilience in sub-Saharan Africa. Climate Change Management. Amsterdam: Springer. https://doi.org/10.1007/978-3-030-12974-3_32

Marcus, R. (2018). The norms factor: Recent research on gender, social norms, and women's economic empowerment. Ottawa: IDRC. https://odi.org/en/publications/the-norms-factor-recent-research-on-gender-social-norms-and-womens-economic-empowerment/

Marcus, R. & Harper, C. (2014). Gender justice and social norms-processes of change for adolescent girls. London: ODI. https://odi.org/en/publications/gender-justice-and-social-norms-processes-of-change-for-adolescent-girls/

Marcus, R., Harper, C., Brodbeck, S., & Page, E. (2015). How do gender norms change? London: ODI. https://cdn.odi.org/media/documents/9817.pdf

McDougall C., Badstue, L., Mulema, A., Fischer, G., Najjar, D., Pyburn, R., Elias, M., Joshi, D., & Vos, A. (2021). Toward structural change: Gender transformative approaches. In R. Pyburn & A. van Eerdewijk, A., (Eds.). Advancing gender equality through agricultural and environmental research: Past, present and future. Washington, DC: IFPRI. https://doi.org/10.2499/9780896293915_10

Morgan, M. (2014). Measuring gender transformative change. Program Brief AAS-2014-41. CGIAR Research Program on Aquatic Agricultural Systems. http://pubs.iclarm.net/resource_centre/AAS-2014-41.pdf

Mosedale, S. (2005), Assessing women's empowerment: Towards a conceptual framework. Journal of International Development, 17, 243–257. https://doi.org/10.1002/jid.1212

Muñoz Boudet, A. M., Petesch, P., Turk, C., & Thumala, A. (2013). On norms and agency: Conversations about gender equality with women and men in 20 countries. Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/13818

Njuki, J., Baltenweck, I., Mutua, E., Korir, L., & Muindi, P. (2014). Women's empowerment in collective dairy value chains. Research Brief 38. Nairobi: ILRI.

Njuki, J., Parkins, J. R., & Kaler, A. (Eds.) (2016). Transforming gender and food security in the global South. London: Routledge. https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/55820/IDL-55820.pdf

Njuki, J. Eissler, S., Malapit, H. J., Meinzen-Dick, R., Bryan, E., & Quisumbing, A. R. (2021). A review of evidence on gender equality, women's empowerment and food systems. United Nations Food Systems Summit. www.ifpri.org/publication/review-evidence-gender-equality-womens-empowerment-and-food-systems

Nyasimi, M. & Huyer, S. (2017). Closing the gender gap in agriculture under climate change. Agriculture for Development, 30, 37–40.

OECD (Organisation for Economic Co-operation and Development) (2019). Social Institutions and Gender Index 2019 global report: Transforming challenges into opportunities. Paris: OECD Publishing. https://doi.org/10.1787/bc56d212-en

Okali, C. (2011). Achieving transformative change for rural women's empowerment. Expert Group Meeting on Enabling Rural Women's Economic Empowerment: Institutions, Opportunities, and Participation.

Paluck, E. L., Ball, L., Poynton, C., & Sieloff, S. (2010). Social norms marketing aimed at gender-based violence: A literature review and critical assessment. Geneva: IRC. https://static.squarespace.com/static/5186d08fe4b065e39b45b91e/t/52d1f24ce4b07fea759e4446/1389490764065/Paluck%20Ball%20IRC%20Social%20Norms%20Marketing%20Long.pdf

Pearse, R. & Connell, R. (2016). Gender norms and the economy: Insights from social research. Feminist Economics, 22(1), 30–53. https://doi.org/10.1080/13545701.2015.1078485

Percy R., Christensen, I, Safa Barraza, A., & Berthelin, L. (2022). Gender, agri-food value chains and climate resilient agriculture in Small Island Developing States. Rome: FAO. https://doi.org/10.4060/cb9989en

Perez, C., Jones, E. M., Kristjanson, P., Cramer, L., Thornton, P. K., Forch, W., & Barahona, C. (2015). How resilient are farming householder and communities to a changing climate in Africa? A gender-based perspective. Global Environmental Change, 34, 95–107.

Petesch, P. (2022) Gender norms, agency, and trajectories of social change and development in agricultural communities. Doctoral dissertation, Wageningen University.

Petesch, P., Bullock, R., Feldman, S., Badstue, L., Rietveld, A., Bauchspies, W., Kamanzi, A., Tegbaru, A., & Yila, J. (2018a). Local normative climate shaping agency and agricultural livelihoods in sub-Saharan Africa. Journal of Gender, Agriculture and Food Security, 3(1), 108–130.

Petesch, P., Feldman, S., Elias, M., Badstue, L., Najjar, D., Rietveld, A., Bullock, R., Kawarazuka, N., & Luis, J. (2018b). Community typology framed by normative climate for agricultural innovation, empowerment, and poverty reduction. Journal of Gender, Agriculture and Food Security, 3(1), 131–157.

Pyburn, R. & van Eerdewijk, A. (Eds.) (2021). Advancing gender equality through agricultural and environmental research: Past, present, and future. Washington, DC: IFPRI.

Quisumbing, A. R., Roy, S., Njuki, J., Tanvin, K., & Waithanji, E. (2013). Can dairy value-chain projects change gender norms in rural Bangladesh? Impacts on assets, gender norms, and time use. Washington, DC: IFPRI. www.ifpri.org/publication/can-dairy-value-chain-projects-change-gender-norms-rural-bangladesh-impacts-assets-0

Quisumbing, A. R., Meinzen-Dick, R., Raney, T., Croppenstedt, A., Behrman, J., & Peterman, A. (Eds.) (2014). Gender in agriculture. Amsterdam: Springer. https://doi.org/10.1007/978-94-017-8616-4_13

Quisumbing, A. R., Rubin, D., Manfre, C., Waithanji, E., Bold, M. van den, Olney, D., Johnson, N., & Meinzen-Dick, R. (2015). Gender, assets, and market-oriented agriculture: Learning from high-value crop and livestock projects in Africa and Asia. Agriculture and Human Values, 32(4), 705–725. https://doi.org/10.1007/s10460-015-9587-x

Rao, N. (2017). Assets, agency and legitimacy: Towards a relational understanding of gender equality policy and practice. World Development, 95.

Ridgeway, C. L. (2009). Framed before we know it: How gender shapes social relations. Gender and Society, 23(2), 145–160. https://doi.org/10.1177/0891243208330313

Sachs, C. E. (2019). Gender, agriculture and agrarian transformations: Changing relations in Africa, Latin America and Asia. New York: Routledge

Social Norms Learning Collaborative (2021). Monitoring shifts in social norms: A guidance note for program implementers. https://www.alignplatform.org/resources/monitoring-shifts-social-norms-guidance-note-program-implementers

Stefanik, L. & Hwang, T. (2017). Applying theory to practice: CARE's journey piloting social norms measures for gender programming. CARE Gender Justice. http://gender.careinternationalwikis.org/_media/care-social-norms-paper-web-final_july_2017.pdf

Sukhera, J. (2022). Narrative reviews: Flexible, rigorous, and practical. Journal of Graduate Medical Education, 14(4), 414–417.

At work in the maize active collection, CIMMYT germplasm bank.
Photo: © Xochiquetzal Fonseca/CIMMYT.

Sultana, F. (2014). Gendering climate change: Geographical insights. The Professional Geographer, 66(3), 372–381.

Suruchi, S., Kostizak, K., & Stevens, S. (2020). Participatory research toolkit for social norms measurement. New York: UNICEF.

UNDP (United Nations Development Programme) (2020). Tackling social norms: A game changer for gender inequalities. Human Development Perspectives. New York: UNDP. https://hdr.undp.org/system/files/documents/hdperspectivesgsnipdf_1.pdf

UNFPA (United Nations Population Fund) (2020) Technical note on gender-transformative approaches in the global programme to end child marriage phase ii: A summary for practitioners. New York: UNFPA. https://www.unfpa.org/sites/default/files/resource-pdf/Technical_Note_on_Gender-Transformative_Approaches_in_the_GPECM_Phase_II_A_Summary_for_Practitioners-January-2020.pdf

USAID (United States Agency for International Development) (2021). Gender norms and women's land rights: How to identify and shift harmful gender norms in the context of land and natural resources. Washington, DC: USAID. www.land-links.org/wp-content/uploads/2021/09/ILRG-Gender-Norms-and-Womens-Land-Rights-Brief_final.pdf

Van Eerdewijk, A., Wong, F., Vaast, C., Newton, J., Tyszler, M., & Pennington, A. (2017). A conceptual model of women and girls' empowerment. White Paper. Bill and Melinda Gates Foundation. https://docs.gatesfoundation.org/Documents/BMGF_EmpowermentModel.pdf

Wazir, R. (2022). Social norm change, behavioural approaches and the politics of knowledge: A conversation between the ivory tower and the field. Development and Change, 54(1), 3–30.

Weeratunge, N., Chiuta, T.M., Choudhury, A., Ferrer, A., Hüsken, S.M.C., Kura, Y., Kusakabe, K., Madzudzo, E., Maetala, R., Naved, R. T., Schwarz, A., & Kantor, P. (2012). Transforming aquatic agricultural systems towards gender equality: A five country review. Working Paper AAS-2012-21. CGIAR Research Program on Aquatic Agricultural Systems. https://hdl.handle.net/20.500.12348/937

Wong, F., Vos, A., Pyburn, R., & Newton, J. (2019). Implementing gender transformative approaches in agriculture. Discussion Paper for the European Commission with Annexes.

Annex 1: Examples of gendered social norms related to the six key domains

Of norms related to **access to, ownership of, and control over productive resources:**

- Women should not own land in their own name.
- Most women in this community do not use technology.
- Only men in this community operate agricultural machinery.
- Most people in this community would disapprove of a woman participating in agricultural extension training.

Of norms related to **influence** and **decision-making:**

- Men should have the final say in household decisions (including what food to buy and grow).
- Most women in this community do not have personal savings.
- Most people in this community would speak negatively of a man who did not have the final say in decisions made at home.

Of norms related to **participation, leadership,** and **representation:**

- Women should not hold leadership roles in community groups.
- Women should not be members of rural organizations or producer groups.
- Most people in this community believe that women should not hold leadership positions at their workplace.

Of norms related to **gender division of labor:**

- Only men should take care of large livestock.
- It would be uncommon in this community for a man and woman to share equally childcare and household chores.
- Most commercial farms are run by men.
- Most people in this community would consider a man to be weak if he were not the primary income earner in his household.

Of norms related to **mobility** and **decorum:**

- Women should not work outside the home.
- Women should not leave the house without their husband's permission.
- Most women in this community do not ride a bicycle to get to the market.

Of norms related to **bodily autonomy and freedom from violence:**

- Most husbands in this community do not beat their wives for any reason.
- Women should not use family planning.
- Most couples in this community [dis]approve of using family planning.

Annex 2: Evidence map

Year	a/b	Author	Title of study/paper	Geographical focus and/or other specifics	Socioecological level				AFS component (value chain node, support and enabling environment)							Norm domain					
					Individual	Household (interpersonal)	Community (organizational)	Systemic (institutional)	Input supply	Production	Processing	Trade and marketing	Consumption	Support and enabling environment	Cross-cutting	Access to, ownership of, and control over productive resources	Gender division of labor	Influence and decision-making	Decorum and mobility	Bodily autonomy and freedom from violence	Participation, leadership, and representation
2011		FAO	The state of food and agriculture: Women in agriculture, closing the gender gap for development						X	X	X	X	X	X	X						
2011		Okali, C.	Achieving transformative change for rural women's empowerment. Expert Group Meeting on Enabling Rural Women's Economic Empowerment: Institutions, Opportunities, and Participation	Framing of gender in agriculture, economic empowerment, national, regional, local		X		X		X					X	X	X	X	X	X	
2011		Arora-Jonsson, S.	Virtue and vulnerability: Discourses on women gender and climate change	North–South biases, generalizations, responsibility, climate change				X							X			X	X		
2012		IFPRI	Women's Empowerment in Agriculture Index (WEAI)	WEAI		X										X		X			X
2012		Weeratunge, N., et al.	Transforming Aquatic Agricultural Systems Towards Gender Equality: A Five Country Review	Bangladesh, Cambodia, the Philippines, the Solomon Islands and Zambia, AAS, Worldfish	X	X	X	X						X	X	X	X	X			X
2013		Alkire, S. et al.	The Women's Empowerment in Agriculture Index	WEAI, Bangladesh, Guatemala, Uganda		X										X		X			X
2013		Kantor, P.	Transforming gender relations: Key to positive development outcomes in aquatic agricultural systems	CGIAR AAS	X	X	X	X								X	X	X			
2013		Farnworth, C. et al.	Transforming gender relations in agriculture in sub-Saharan Africa	GTA, sub-Saharan Africa. Ethiopia, Kenya, Mozambique, Nicaragua, Zambia	X	X	X	X		X					X	X	X	X			X
2013		Kantor, P., Apgar, M.	Transformative change in the CGIAR Research Program on Aquatic Agricultural Systems	CGIAR, terminology, transformation, AAS	X		X	X		X					X		X				
2013		Kazianga, H., Wahhaj, Z.	Gender, social norms, and household production in Burkina Faso	Burkina Faso, assymetrical access to information		X			X	X						X	X				
2013		Quisumbing, A. R. et al.	Can dairy value-chain projects change gender norms in rural Bangladesh? Impacts on assets, gender norms, and time use	Formal and informal market activities, value chain		X									X	X	X	X			
2013		Beuchelt, T. D., Badstue, L.	Gender, nutrition- and climate-smart food production: Opportunities and tradeoffs	CSA, Zambia, Mexico			X								X	X					
2014		Njuki, J. et al.	Women's empowerment in collective dairy value chains	WEAI	X	X	X			X						X		X		X	X
2014		Morgan, M.	Measuring gender transformative change	Gender transformative measurement, indicators , CGIAR																	
2014		Kantor, P., Kruijssen, F.	Informal fish retailing in rural Egypt: Opportunities to enhance income and work conditions for women and men	Egypt			X	X		X		X		X			X				
2014		Jahan, R., Farnworth, C. R	Literature review on gender and wider social norms in south west Bangladesh	Climate change, aquaculture, Bangladesh		X				X								X	X	X	X
2014		Cole,S. M. et al.	Gender-transformative approaches to address inequalities in food, nutrition and economic outcomes in aquatic agricultural systems	CGIAR, Zambia, GTA		X	X	X	X	X				X		X					
2014		Sultana, F.	Gendering climate change: Geographical insights	South Asia, adaptation, natural hazards				X							X		X				
2015		Hillenbrand, E. et al.	Measuring gender-transformative change: A review of literature and promising practices	CGIAR AAS, GTA			X	X	X	X					X	X		X	X	X	X

2015		Quisumbing, A. R. et al.	Gender, assets, and market-oriented agriculture: Learning from high-value crop and livestock projects in Africa and Asia		X				X	X			X			X		X			
2015		Perez, C. et al.	How resilient are farming householder and communities to a changing climate in Africa? A gender-based perspective	East and West Africa, access and control, resilience		X	X		X					X	X	X					
2016		Johnson, N. L. et al.	Gender, assets, and agricultural development: Lessons from eight projects	Ownership of assets, Africa, South Asia	X	X				X						X					
2016		Cohen, P. J. et al.	Understanding adaptive capacity and capacity to innovate in social-ecological systems: Applying a gender lens	Building capacities, gender and social differentiation, Solomon Islands			X		X						X	X		X	X		
2016		Njuki, J. et al.	Transforming gender and food security in the global South	Africa, Asia, South America		X	X						X				X				
2016		Lambrecht, I.	"As a husband I will love, lead, and provide": Gendered access to land in Ghana	Land governance, intra-household negotiations		X	X	X		X				X		X					
2016		Jost, C. et al.	Gender and inclusion toolbox: Participatory research in climate change and agriculture	Uganda, Ghana, Bangladesh, CSA			X		X					X		X					
2016		Djoudi, H. et al.	Beyond dichotomies: Gender and intersecting inequalities in climate change studies	Climate change and gender, gaps, feminization of vulnerability				X							X						X
2017		Badstue, L. et al.	Gender and innovation processes in wheat-based systems	Afghanistan, Bangladesh, Ethiopia, India, Morocco, Nepal, Pakistan, Uzbekistan; wheat, innovation, gender and agency	X										X	X	X				
2017		Locke, C. et al.	Innovation and gendered negotiations: Insights from six small-scale fishing communities	Fisheries, gender relations, Cambodia, Philippines, Solomon Islands, innovation	X	X		X							X			X			
2017		Nyasimi, M., Huyer, S.	Closing the gender gap in agriculture under climate change	CSA, barriers, resilience			X		X		X	X					X				X
2017		Rao, N. et al.	Assets, agency and legitimacy: Towards a relational understanding of gender equality policy and practice	Water scarcity, gendered vulnerability to climate change, semi-arid countries, Asia, Africa			X			X								X			
2018		Kruijssen, F. et al.	Gender and aquaculture value chains: A review of key issues and implications for research	Gender, aquaculture												X	X	X			X
2018		Aregu, L. et al.	Gender norms and agricultural innovation: Insights from six villages in Bangladesh	Gender norms, innovation, agriculture, Bangladesh		X										X					
2018		Elias, M. et al.	Gendered aspirations and occupations among rural youth, in agriculture and beyond: A cross-regional perspective	GENNOVATE India, Mali, Malawi, Morocco, Mexico, Nigeria, Philippines, youth, innovation, aspiration achievment gap	X	X	X			X					X	X	X		X		
2018	a	Badstue, L. et al.	What drives capacity to innovate? Insights from women and men small-scale farmers in Africa, Asia, and Latin America	Innovation, small-scale farmers, Latin America, Africa, Asia	X		X	X	X	X	X	X		X		X	X	X			
2018	a	Petesch, P. et al.	Local normative climate shaping agency and agricultural livelihoods in sub-Saharan Africa	Local normative climate, sub-Saharan Africa			X								X			X			X
2018	b	Badstue, L. et al.	Qualitative, comparative, and collaborative research at large scale: An introduction to GENNOVATE	Gender norms, agency, innovation, agriculture, GENNOVATE, methodological		X	X			X						X	X	X	X		
2018	b	Petesch, P. et al.	Community typology framed by normative climate for agricultural innovation, empowerment, and poverty reduction	Agency, poverty reduction		X									X		X	X			
2019		Wong, F. et al.	Implementing gender transformative approaches in agriculture	CGIAR, GTA in agriculture				X													
2019		Holmelin, N.B.	Competing gender norms and social practice in Himalayan farm management	Nepal, empowerment, gender equality and traditional norms, migration, agriculture		X	X								X	X		X			X

2019		Galiè, A. et al.	The Women's Empowerment in Livestock Index	WEAI, index, empowerment, productivity, Tanzania	X	X			X							X	X	X			
2019		Lawless, S. et al.	Gender norms and relations: Implications for agency in coastal livelihoods	Solomon Islands, gender blindness, GENNOVATE, agency, livelihoods		X									X			X			
2019		Mangheni, M. N. et al.	Gender norms, technology access, and women farmers' vulnerability to climate change in sub-Saharan Africa	Transformation, CSA, sub-Saharan Africa, seeds			X		X	X				X		X					
2020		Huyer, S., Partey, S.	"Weathering the storm or storming the norms? Moving gender equality forward in climate-resilient agriculture"	ender, climate change, agriculture, CSA, empowerment				X							X						
2020		FAO et al.	Gender transformative approaches for food security, improved nutrition and sustainable agriculture: A compendium of fifteen good practices	GTA for Food Security and Nutrition	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X
2020		Bilfield, A. et al.	Brewing a more balanced cup: Supply chain perspectives on gender transformative change within the coffee value chain	Fair trade organic coffee, value chains, structural change			X	X	X	X	X	X		X		X	X	X			X
2020		Farnworth, C. R. et al.	Leaving no one behind: How women seize control of wheat–maize technologies in Bangladesh	Bangladesh, barriers, innovation, marginalization, GENNOVATE, wheat			X	X	X					X		X					X
2020		Gumucio, T. et al.	Gender-responsive rural climate services: A review of the literature	Rural climate services, ICT, access		X			X					X		X		X			
2020		Glazebrook, T. et al.	Gender matters: Climate change, gender bias and women's farming in the Global South and North	Ghana, US, differentiated needs				X	X	X				X		X					
2020	a	Badstue, L. et al.	Making room for manoeuvre: Agender norms to strengthen the enabling environment for agricultural innovation	GENNOVATE, local gender norms											X						
2020	b	Badstue, L. et al.	Women farmers and agricultural innovation: Marital status and normative expectations in rural Ethiopia	Ethiopia, Resource Agency Achievements Framework, land, GBV		X			X	X						X					X
2021		McDougall, C. et al.	Toward structural change: Gender transformative approaches	WID, GAD, transformative change											X						
2021		Leeuwis, C. et al.	How food systems change (or not): Governance implications for system transformation processes	Systems thinking, governance, food systems transformation				X							X			X			
2021		Lowery, S. et al.	Gender norms and women's land rights: How to identify and shift harmful gender norms in the context of land and natural resources	Programme design, social norms, land rights					X	X						X		X			
2021		Leon-Himmelstine, C. et al.	Young women in the agricultural sector in Uganda Lessons from the Youth Forward Initiative	Uganda, gender norms, participation			X		X	X						X	X	X			
2021		Njuki, J. et al.	A review of evidence on gender equality, women's empowerment and food systems	Gender equality in food systems, reslience, gaps, best practices			X	X	X						X	X		X			X
2021		Huyer, S.	Building farmers' resilience to climate change means addressing gender inequalities	CGIAR			X		X							X	X	X			X
2022		Petesch, P.	Gender norms, agency, and trajectories of social change and development in agricultural communities	SDG 1, SDG 5, micosocial processes, smallholder communities, local normative climate	X	X	X	X	X							X					
2022		Galiè, A. et al.	Livestock innovations, social norms, and women's empowerment in the Global South	Innovation, 73 countries, empowerment					X	X		X	X	X		X	X				
2022		FAO et al.	Guide to formulating gendered social norms indicators in the context of food security and nutrition	Standardization, measurement, GTA, norms	X	X	X						X		X						X
2022		Percy, R. et al.	Gender, agri-food value chains and climate resilient agriculture in Small Island Developing States	SIDS, traditional agricultural knowledge, resilience			X		X					X		X					
2022		Lopez, D. E. et al.	Towards gender-inclusive innovation: Assessing local conditions for agricultural targeting	Gender norms in agricultural innovation, gender inclusive interventions, GENNOVATE, gender climate			X							X				X			X

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Cover image: Adaptation pioneers Kidane and Wilta demonstrating their innovative feed supplements in Ethiopia. Photo: @ Apollo Habtamu ILRI.

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