



INITIATIVE ON
Asian Mega-Deltas

Research Report

An Assessment of Gender Equality and Social Inclusion (GESI) in the Governance, Policies and Programs of Bangladesh's Agri-food Systems

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Cover photo: Women of Dakshin Kharibari village, Dimla sub-district, Nilphamari district of Bangladesh, participate in a focus group discussion on economic and non-economic loss and damage induced by climate change. (photo: Haseeb Md. Irfanullah)

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Acronyms and Abbreviations

ADB	Asian Development Bank
AIF	Agriculture Innovation Fund
BARC	Bangladesh Agricultural Research Council
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
BDP	Bangladesh Delta Plan
BDT	Bangladeshi taka (currency)
CBO	community-based organization
CIF	Climate Investment Funds
CLA	Collaborating, Learning and Adapting
CSO	civil society organization
CVA	Citizen Voice and Action
DAE	Department of Agricultural Extension
DAM	Department of Agricultural Marketing
DDCC	district development coordination committee
ECCP-Flood	Extended Community Climate Change Project-Flood
FY	fiscal year
GCF	Green Climate Fund
GEF	Global Environment Facility
GESI	Gender Equality and Social Inclusion
ICT	information and communication technology
IP	Innovation Platform
IPM	Integrated Pest Management
LDCF	Least Developed Countries Fund
LGI	local government institution
LSP	Local Service Provider
MCP	Mujib Climate Prosperity Plan
MEL	monitoring, evaluation and learning
MoA	Ministry of Agriculture
NAP	National Adaptation Plan
NARS	National Agricultural Research System
NATP-2	National Agricultural Technology Program - Phase II
Nbs	nature-based solutions
NGO	non-governmental organization
PKSF	Palli Karma-Sahayak Foundation
UNDP	United Nations Development Programme
VBO	village-based organization

Summary

Agri-food system policies and programs in Bangladesh increasingly consider environmental challenges and intersections. Social and political dimensions of agri-food systems are of equal importance to sustainable food security. Is similar attention paid to these issues? The impacts of climate change and challenges from environmental pollution and degradation of natural resources have been shown to lead to declines in agricultural productivity, while at the same time further impacting sustainability and ecosystem services. These challenges can worsen food insecurity in Bangladesh. Inattention to these issues in policies, programs and fiscal strategies will not only affect those who are the most marginalized but also undermine Bangladesh's social and economic development goals, including the Sustainable Development Goals (SDGs).

The focus of this study was to examine agri-food system governance in Bangladesh considering seven dimensions of inclusive governance: representation, participation, capacity and skills, access to resources, financial resources, knowledge and innovation. Examining 23 key policies and programs, this report aims to address the following questions:

1. Is socially inclusive governance a focus of key agri-food system policies and programs?
2. What interventions could enable a shift towards more socially inclusive governance for agri-food systems in Bangladesh?

In Bangladesh, agri-food policies and programs do recognize women and other marginalized groups as key stakeholders and encourage some participation of these groups. However, the analysis of 23 relevant food, water, environment and climate policies shows that the focus on issues of inclusive governance lacks coherence, and consequently, the processes of representation and participation are inconsistent. There seems to be a growing effort to engage and consult women and marginalized groups in policy development processes, however, these initiatives are not consistent across policies. Moreover, even when policies and programs are relatively inclusive, little is known of their effectiveness and impact in practice. Policies tend to lack complementary implementation guidelines, and while budgetary allocations for ensuring gender equality are mandatory for all ministries, there is little review, monitoring and reflection on what works well or does not, in terms of socially inclusive governance. Regardless of these challenges, the national Gender Budget Report of Bangladesh prepared annually for all ministries to report on expenditures to promote gender equality across different sectors, including in agri-food system programs, is a key example of the national commitment to tackling gender inequalities through consistent fiscal planning.

The study findings show that a key challenge to socially inclusive policies and programs is the lack of granular evidence and knowledge about the diversity of exclusions experienced by marginalized groups. Without proper representation and voice in decision-making, policies designed top-down are often unable to respond to complex ground realities. To promote gender equality and social inclusion, the authors propose the following interventions:

- Ensure intentional and consistent attention to socially inclusive governance across relevant policies and sectors, and review and track the representation and participation of marginalized communities in agri-food system policy processes.
- Assess how heterogeneity and intersectionality among marginalized groups impact representation and participation in governance across agri-food system value chains, livelihoods and food security, and adaptation and coping strategies in the face of increasing climate and other risks.
- Improve awareness of, and capacity and skills related to, gender and social inclusion for institutional actors implementing policies at scale, and also ensure their engagement in agri-food system policymaking.
- Ensure that agri-food system governance processes tackle, and do not reinforce social identity stereotypes based on gender, ethnicity and forms of marginalization.
- Ensure policies are complemented with detailed strategies and guidelines for implementation, supported by appropriate financing, and that there is a framework and process in place to regularly review and monitor outputs and outcomes.

Introduction

The CGIAR Initiative on Asian Mega-Deltas¹ (AMD) aims to support the creation of resilient, inclusive and productive deltas and sustainable agri-food systems. The AMD Initiative addresses challenges to livelihoods, food and nutrition security, and the sustainability of natural resources on which the resilience of the entire agri-food system depends. A key element of supporting sustainability and productivity is ensuring that the governance of the agri-food system also pays attention to gender equity and social inclusion. Inclusive governance requires the meaningful representation and participation of marginalized groups, including women, youth, smallholder farmers and fishers, and the poor, who are also frequently the intended beneficiaries of policies and programs. This report reviews key policies and programs of the agri-food system in Bangladesh to assess gender and social inclusion in current policies and programs.

Twenty years ago, Tisdell (2002) predicted that despite consistent years of good economic growth, a slowing of population growth, and pro-environment agricultural reform, the country's economic gains might be short-lived "unless more is done to protect Bangladesh's natural resource-base and its environment." His analysis argued that an overt focus on economic growth could unintentionally detract from addressing the country's environmental challenges and, in the longer run, also undermine economic progress. Tisdell's observations were based on the analysis that sustainable growth and management of the economy, agri-food systems, the environment and ecosystem services were inherently interlinked, with shared synergies, risks and opportunities.

Historically, Bangladesh has done well in terms of food production. This geographically relatively small country of over 170 million people is third in the world in terms of rice production (37.8 million tonnes in 2021) (FAO 2022a), third in inland capture fisheries production (1.25 million tonnes in 2020) (FAO 2022b) and fifth in aquaculture fisheries production (2.58 million tonnes in 2020) (FAO 2022b). Bangladesh's economic growth has continued despite the Covid-19 pandemic, with an annual growth rate of 7.9% in 2019, 3.4% in 2020, 6.9% in 2021 and 6.03% in 2022 (World Bank n.d.a). Bangladesh remains the fastest growing economy in the Asia-Pacific region (Dhaka Tribune 2023).

However, as Tisdell (2002) predicted, the natural resources that underlie such growth are now at risk. Environmental pollution is a serious problem that is growing worse. According to the 2022 Environmental Performance Index (EPI) (Yale Center for Environmental Law and Policy 2022), Bangladesh is at the bottom (177) of 180 countries in reducing environmental pollution and has fallen by 15 places in the past two years.

Climate change poses another substantial threat to the country. Over the past 15 years, Bangladesh has been among the top ten countries in the world in terms of vulnerability to climate change. It was ranked as the seventh most extreme disaster-risk-prone country in the world by the 2021 Global Climate Risk Index (Eckstein et al. 2021). Climatic risks are rapidly increasing, affecting almost all sectors of growth and development. The impacts of these challenges on agri-food systems are diverse - more pests and disease, reduced availability of cultivable lands, lower crop yields, greater loss of livelihoods and more food and nutrition insecurity. Risks vary across crops and locations. For example, pest infestations in rice fields are predicted to become the dominant challenge in the northern parts of the country by 2050. In the southern coastal belts, the sea level is expected to rise by between 0.62 m and 0.92 m. Along with cyclonic storm surges, this will increase coastal flooding and lead to losses of between 7% and 10% in rice production (GoB 2020a; Wilkes 2022). Climate change thus poses significant challenges to the trajectories of steady economic growth and increased food production Bangladesh has experienced in recent years.

Although agri-food system policies and programs in Bangladesh increasingly consider environmental issues and concerns, they pay less attention to the complexity of the interlinked social, economic and political dimensions of agri-food systems, which are also of critical importance to future progress. Policies and programs overlook the importance of inclusive governance that actively impacts marginalized groups (Jacobi et al. 2021). Agriculture is the lifeline of the formal and informal rural economies in Bangladesh. More than 70% of Bangladesh's population lives in rural areas. Nearly half of all of Bangladesh's workers and two-thirds in rural areas are directly employed by the agricultural sector, and about 87% of rural households rely on agriculture for at least part of their income (World Bank 2016). There are concerning reports that climate risks aggravate widespread landlessness, chronic poverty and persisting food insecurity, especially in low-income households (WFP 2023).

Paying attention to poverty, marginality, gender and ethnicity will be key to ensuring sustainable productivity of agri-food systems. This will, in turn, determine Bangladesh's success in reaching national and global social and economic development goals, including the Sustainable Development Goals (SDGs). Building on this understanding of the need for governance that promotes gender equality and is socially inclusive (GESI) to address the challenge of agri-food system transformation, this report examines the following questions:

¹ <https://www.cgiar.org/initiative/asian-mega-deltas/?section=about>

- Is socially inclusive governance a focus of key agri-food system policies and programs?
- What are the challenges to more socially inclusive governance?
- What interventions could enable a shift towards more socially inclusive governance for agri-food systems in Bangladesh?

Methods and Framework

Governance can be thought of as the system by which resources and entities are directed and controlled (Governance Today n.d.). The boundaries of what counts for governance can vary from a very limited landscape, as in the case of a community, to one with a much larger scope, such as the case examined in this report of an integrated water-land-food-environment system of a large river delta. In any case, “governance” is concerned with structures and processes of decision-making, accountability, control and interactions across any given landscape.

Governance varies enormously across political spaces and contexts, and given this flexibility, the nature of governance structures and processes also varies. The complexity of food systems, with their integration of sectors and functioning across horizontal and vertical levels, means that agri-food system governance must work within a complex institutional architecture (Candel 2014; Termeer et al. 2018). Nevertheless, a range of elements and principles of “good governance” can be defined regardless of such complexities (OECD 2015; ECOSOC 2018; Governance Today n.d.; Government of British Columbia n.d.). There is no set common agreement on these principles, but in every case, good governance should help a particular entity achieve its goals.

Useful to our analysis, the United Nations Economic and Social Council (ECOSOC) lists three main principles of effective governance for sustainable development — inclusiveness, effectiveness and accountability (ECOSOC 2018). This study examines only one of these three components of effective governance, namely social inclusion. Inclusion is a critical element in the analysis of agri-food system governance, especially in a country like Bangladesh, where there are persisting challenges of poverty and food insecurity. In this multiplicity of actors, institutions, and social, economic and environmental factors, one of the characteristics of “good governance” is the focus on gender equality and social inclusion (Termeer et al. 2018).

To gain insights into the diverse aspects of agri-food system governance, the authors reviewed recent literature on food systems governance and related work on participation and inclusion in agriculture, including nature-based solutions (NbS). Based on this review, seven key dimensions of inclusive governance for agri-food systems were identified. Taken together, they provide a framework to analyze if and how social inclusion is reflected in the 23 policies reviewed. The seven dimensions are: representation, participation, capacity and skills, access to resources, financial resources, knowledge and innovation (Termeer et al. 2018; IUCN 2020; Jacobi et al. 2021; Arthur et al. 2022; Coger et al. 2022) (see Table 1).

This initial survey of social inclusion in food system governance in Bangladesh focuses on how 23 policies across the agri-food system pertaining to agriculture, food systems, climate change, conservation and natural resource management reflect key elements of governance as viewed through these seven dimensions of inclusion. Because the focus was on the content of the policies, this study does not examine issues surrounding policy and program implementation.

Table 1. Dimensions of inclusive governance in agri-food systems.

Dimension	Description
1. Representation	This looks at how diverse groups are represented in the different policies, structures, components and stages of agri-food system governance and how such governance reflects concerns with diversity, inclusion, equity and justice.
2. Participation	This asks how people take part in i) policy formulation: are voices and concerns of local, marginalized communities heard and incorporated into national and subnational (particularly local) policies and plans? ii) decision-making: is decision-making bottom-up, blended (both top-down and bottom-up), or decentralized/devolved? iii) designing, planning and implementing localized interventions; iv) assessing and responding to social and bio-physical trade-offs; and v) monitoring, evaluation and learning (MEL) processes. MEL processes can be participatory or prescriptive, or adaptive or static/non-responsive, and can feed into decision-making processes (or not) and contribute to adaptive management.
3. Capacity and Skills	These include capabilities of individuals, households, or community-based/local institutions to analyze a situation/problem, communicate grievances and get responses from relevant individuals or institutions, build livelihoods and assets, collaborate with different agri-food system actors (e.g., the public sector, non-governmental organizations [NGOs], the private sector), and innovate and transform in response to changes, opportunities and challenges in the agri-food system.
4. Accessibility	This includes access to inputs needed for responding to or shaping food systems governance and change, including, for example, access to i) natural resources, including land and water for practicing agriculture; ii) markets; iii) shared benefits resulting from community- and landscape-level interventions; iv) technology, especially information and communication technology (ICT), to ensure participation, express opinions and give feedback, engage in participatory monitoring, facilitate information flow and archive generated knowledge products, among others; and v) finance, which can come from different sources (e.g., microcredit, bank loans, insurance, grants, social safety net or other forms of social assistance).
5. Financial resources	This examines whether resources (operating budgets and investments) are adequate for support of the operation of the agri-food systems and whether agri-food system change is needed, including response to climate change, with meaningful inclusion of i) women and girls (gender), and ii) other marginalized communities.
6. Knowledge system	This includes i) understanding the problems, challenges, and risks faced by different marginalized communities or groups; ii) appreciating local and indigenous knowledge; iii) harnessing both academic and traditional knowledge; iv) co-generating knowledge in collaboration with the local community; and v) making information and other knowledge available for use as a public good.
7. Innovation	This describes how innovation is harnessed in policy and practice in response to the changing climate and environment, society and economy.

Dimensions of Gender and Social Inclusion in Agri-food System Policies and Programs in Bangladesh

The authors reviewed key policies and programs of the agri-food system in Bangladesh in terms of these seven dimensions. While the seven dimensions are not uniformly considered across policies, this assessment can nevertheless provide an idea about how inclusion is considered (or not) across agri-food system governance in Bangladesh and about how governance approaches distinguish (or not) women and other often marginalized groups, such as youth, the elderly, persons with disabilities and other groups disadvantaged by ethnicity or class.

Representation

The visibility of marginalized groups in policy framings and the extent to which their roles and contributions in agri-food systems are recognized in policies are key to ensuring sustainable food systems. The fact that these groups are considered and represented in policies is a foundation of inclusion.

Representation

How are people, especially marginalized people, represented in the different policies, structures, components and stages of agri-food system governance?

How does such governance reflect concerns with diversity, inclusion, equity and justice?

Bangladesh's key agriculture-related policies generally recognize women and other marginalized groups as important actors, although there is significant variation across policies. For example, in the 2011 National Women Development Policy (GoB 2011), the section titled "Women and Farming" emphasizes the need to recognize female workers' contributions to the national economy. It envisages the removal of wage-related discrimination against women in agriculture and ensuring women farmers have equal access to agricultural inputs, including an Agriculture Card and credit facilities.

Along the same lines, the 2018 National Agriculture Policy (GoB 2018a) highlights the need for technical support for women working in agricultural production and agribusiness. The policy recognizes that women contribute to the agri-food system in multiple ways, with a range of roles across the food system. For example, it emphasizes the need to support women's wage-labor initiatives and engagement in vegetable production and recommends the adoption of a separate extension program to specifically target women. It also notes women's roles in planning, decision-making and management of household food security activities. The policy also describes measures to eliminate wage inequality among women agricultural workers and strengthen the economic position of women by establishing cottage industries based on agricultural products. It further notes the importance of women's engagement in agricultural education, research and training.

The National Agriculture Policy (2018) also highlights the role of youth in agriculture. It encourages the establishment of Youth Farmer Clubs to incentivize the involvement of youth in agriculture and build their capacities as entrepreneurs, thus encouraging them to stay in the sector. Clubs create opportunities for youth self-employment by helping them set up small- and medium-scale companies focused on value addition in the food supply chain, such as agriculture input marketing and processing firms. The clubs also seek to enhance access to mechanization and provide youth members with loans.

A few other policy instruments also touch on inclusion in the agriculture sector. The 2018 Seeds Act (GoB 2018b), for example, has a provision to establish a National Seed Board with two government-nominated representatives from farmer communities. Despite this representation, the Act does not explicitly talk about the production, marketing or conservation of seeds of indigenous crop varieties that local and indigenous communities produce and use. The Act proposes the establishment of a Plant Varieties Protection Authority but does not explicitly include any representation from the farmer community.

The 2020 National Agricultural Mechanization Policy (GoB 2020b) seeks to support modernization of the agricultural sector through increased mechanization. In terms of inclusive representation, the policy promotes the training of women to build their awareness around the use of mechanization, including how to use machines safely. The policy also encourages women and youth to become entrepreneurs in the provision of agricultural machinery services. The policy supports this objective by giving these potential new business owners incentives, training, advice and bank loans.

The National [Climate] Adaptation Plan of Bangladesh (2023–2050) (NAP) is perhaps the most important document dealing with climate change and agriculture. In terms of representation, it also seems to be one of the most inclusive. The NAP provides a comprehensive plan to guide Bangladesh’s climate adaptation actions till 2050 (GoB 2022a). It prioritizes eight sectors for climate adaptation efforts, including agriculture, livestock, fisheries and aquaculture. Issues faced by women, youth, the elderly, persons with disabilities, ethnic communities and other socially disadvantaged groups are considered in a cross-cutting way, providing an intersectional approach to inclusion.

Out of six adaptation goals, “Goal 2: Develop climate-resilient agriculture for food, nutrition and livelihood security,” focuses exclusively on the agri-food system. Actions to achieve this goal include promoting climate-smart agriculture, fisheries, aquaculture and livestock by developing sustainable value chains for agricultural inputs, particularly in climate-vulnerable regions, and by strengthening research and technological innovations for climate-resilient crops and agricultural practices. Out of 113 adaptation interventions, 12 are aimed at agriculture and 13 at fisheries, aquaculture and livestock. Among the agricultural interventions, only one – e-commerce-based entrepreneurship – explicitly talks about engaging marginalized groups, namely women, people with disabilities and youth, although, implicitly, the NAP is already largely inclusive due to its focus on marginalized communities and groups in climate-vulnerable regions.

National plans and policies provide the overall framing and guidance for the programs, projects and investments that operationalize them. Consequently, projects, many of which receive funding from development partners, should reflect the dimensions of social inclusion that these plans and policies highlight. For example, the Nobo Jatra project funded by the United States Agency for International Development (USAID) and led by World Vision (World Vision Bangladesh - Nobo Jatra 2019), the Strengthening Household Ability to Respond to Development Opportunities (SHOUHARDO) project funded by USAID and implemented by CARE International (CARE Bangladesh 2019), and the Green Climate Fund (GCF) adaptation projects in the coastal and flood-prone regions of Bangladesh (Green Climate Fund 2022a; Green Climate Fund 2022b). These projects make direct references to these women and youth, in addition to explicitly including small farmers and climate-vulnerable people as part of their beneficiary target populations.

Participation

Going beyond policy emphasis on gender and social inclusion, a key issue is whether marginalized groups actively participate in the framing of policies and programs and in reviewing implementation for “inclusion”.

Participation

How do people take part in policy formulation, decision-making, designing, planning and implementing interventions, assessing and responding to social and biophysical trade-offs and monitoring, evaluating, learning (MEL) processes?

In policy formulation. Government planning for development in Bangladesh revolves around short-term (e.g., Five-Year Plans), medium-term (e.g., Perspective Plan of Bangladesh 2021–2041 [GoB 2020c]) and long-term (e.g., Bangladesh Delta Plan [BDP] 2100 [GoB 2018c]) plans. In the process of developing these plans, the government collects statistics and information from government agencies, public research entities, and non-governmental organizations (NGOs) among others. The government may also request public comment or hold consultations with experts and stakeholders, including potential beneficiaries, at national, regional and local levels. The extent of citizens’ participation, particularly participation by marginalized groups, in the development and implementation of such plans, however, seems to be uneven.

Many of these plans (e.g., Five-Year Plans, Bangladesh Climate Change Strategy and Action Plan 2009 [BCCSAP] [GoB 2009] and Climate Investment Funds [CIF] [Climate Investment Funds 2022]) have a rather narrow view of “development” and are largely sector-specific. However, the processes of planning are also gradually changing, particularly with longer-term, more “visionary” documents dealing with climate change, such as the Perspective Plan and BDP 2100. The Mujib Climate Prosperity Plan 2022–2041 (MCP) represents a different way of looking at development, using a “resilience-to-prosperity” lens to break down sectoral silos (GoB 2022b).

At least in terms of climate change policy, the increasing use of specific consultation processes has deepened the level of participation over time. For example, the formulation of BCCSAP in 2007 and 2008 involved national-level consultations, and, while this is important, consultations did not go much beyond this level. On the other hand, the preparation of the NAP (GoB 2022a) in 2021 and 2022 used a well-thought-out, inclusive process that gave high priority to the opinions of local people, women, people with diverse gender identities, persons with disabilities, youth, students, ethnic communities, children, elderly people, the urban poor, other vulnerable communities and disadvantaged groups, and community-based organizations (CBOs).

Preparation involved over 5,000 people across the country, participating in 35 stakeholder consultations and more than 100 key informant interviews and focus group discussions. When the selected 113 NAP interventions were prioritized, eight criteria were identified to rank each intervention. 'Gender and social inclusion,' defined as "the extent to which the measure is conducive to accommodating local adaptation needs through participatory processes responsive to gender dimensions, persons with disabilities, youth, children, elderly people, ethnic communities or other socially disadvantaged groups, leaving no one behind," was one of the criteria (GoB 2022a). Participation of marginalized groups in the process of policy formulation, therefore, was significant.

In the agri-food system. Beyond policy formulation, examining how policies encourage the participation of marginalized groups in the operation of the agri-food system itself is essential. The national Gender Budget (2022–2023) describes how the government is taking action across sectors and ministries to include and empower women. The Bangladesh Agricultural Research Council (BARC), the Department of Agricultural Extension (DAE) and the national agricultural research system (NARS), for example, support a wide range of women's participation in the agri-food system through technical assistance, training and funding (GoB 2022c).

Support for women's participation in agricultural production is especially notable. Agricultural extension programs use various communication methods to reach producers, including trainings, field demonstrations, agricultural fairs, rallies and media campaigns. About 35% of participants in these events are women. In these programs, women are encouraged to undertake homestead gardening and learn how to store and process fruits and vegetables for home use. They are also involved in producing and storing jute seeds, and in the production of organic fertilizer, biofertilizer and vermicompost. A third of workers involved in seed production and household garden activities for improved nutrition are women. Women also participate in surface water management (e.g., small irrigation extension, mitigation of waterlogging) to increase arable land (GoB 2022c).

Development assistance in support of government policies also integrates women into development activities. The World Bank-supported National Agricultural Technology Program–Phase II (NATP-2) (2015–2023) aims to increase agricultural productivity and improve farmers' access to markets to enhance food security and adaptation to climate change. Small and marginal farmers, especially women (35% of one million targeted farmers), benefit from stronger linkages with research, demonstrations of new and improved technologies, capacity and skills development, and agricultural extension services (World Bank 2019). It was initially expected that 224,000 female farmers would adopt improved agricultural technologies by the end of the project in mid-2023, yet by project closure in June 2023, the number had already reached more than 260,000 (World Bank n.d.b).

In another instance, the USAID-funded Nobo Jatra project (World Vision Bangladesh - Nobo Jatra 2019) has been working with more than 200,000 vulnerable households in southwest Bangladesh to improve gender-equitable food security, nutrition and resilience of climate-vulnerable households. By 2019, the project supported 20,289 farmers, 95% of whom were women, to practice climate-smart agriculture and adopt improved production technologies. Using the Citizen Voice and Action (CVA) approach (Long and Panday 2020), the project works with civil society organizations (CSOs) and NGOs to ensure community voices are heard. This approach helps the community improve access to government extension services and local input suppliers. An independent evaluation (Long and Panday 2020) of this approach has shown that CVA strengthened the local service system in three ways: i) by getting appropriate information, tools and space, the community could now use its voice and carry out new actions because of stronger social accountability; ii) improved coordination among agencies, greater community participation and increased social pressure enhanced the performance of local institutions; and iii) improved accountability made inaction by service providers harder and at the same time rewarded their positive actions and performance.

Establishing community-based organizations (CBOs) (Faruk and Maharjan 2022) or village-based organizations (VBOs) (Rahman and Akter 2020) is one of the proven ways to bring target beneficiaries together and empower them to drive project vision, strategy, approaches and interventions. Such an arrangement is often presented as a way to ensure the long-term impact of the project (Thompson 2013). But sustainability of activities and outcomes requires continuing effort, and in many cases, these community organizations often survive only so long as the project supports them.

Social inclusion in MEL of the National Plan. Locally led monitoring mechanisms are expected to be important parts of the NAP (GoB 2022a). The MEL framework is to be developed through engaging local government institutions (LGIs), district development coordination committees (DDCCs), *upazila* (an administrative division in Bangladesh similar to a county or borough) and union committees, representatives of communities, NGOs, CSOs and VBOs. This framework looks to ensure the inclusion of women, youth, disabled individuals and other typically marginalized groups by generating data and utilizing performance indicators disaggregated by sex, age and disability. Some examples of indicators to be used in this MEL framework are: i) vulnerable population by sex, age and disability, ii) number of gender- and disability-inclusive co-management initiatives for climate change adaptation, and iii) measures regarding infrastructure development (embankment height, number of regulators, accessibility for persons with disabilities, etc.).

Capacity and Skills

For the intent of inclusion to become a reality, marginalized groups must have the capacities and skills to take advantage of opportunities for participation, including awareness of those opportunities. Specific attention to the capacity and skills needed by marginalized groups to fully participate in governance is more often present in project descriptions rather than in policies, which tend to be higher-level. Policies and strategies should take this dimension into account as well.

Capacity and Skills

Do individuals, households, or community-based and local institutions have the capacities to act – to analyze the situation/problem, communicate grievances and get responses from relevant individuals or institutions? Can they collaborate with different agri-food system actors (e.g., the public sector, NGOs, the private sector) to build livelihoods and assets and innovate and transform in response to changes, opportunities and challenges in the system?

In Bangladesh, a number of key projects focus on building capacities of beneficiary groups to participate in project activities. Under different projects of the DAE, for example, almost 330,000 women (about 20% of total trainees) have been trained in modern crop production technologies, integrated pest management (IPM), post-harvest techniques and marketing (GoB 2022c). The NATP-2 project, in particular, emphasizes capacity development for women farmers. By closure of the project in June 2023, NATP-2 had provided more than 1.4 million client-days of training to women participants (World Bank n.d.b).

Under the Nobo Jatra project, by 2019, almost 52,000 women had been trained in entrepreneurial literacy and enterprise development (World Vision Bangladesh - Nobo Jatra 2019). The training included basic literacy and numeracy and the core concepts of credit, business development and income. This project also trained 200 lead farmers, including women farmers, to manage 200 climate-smart demonstration plots. The purpose of this activity was to create demand within the respective communities for new technologies, including salt-tolerant crop varieties, by using local farmers to show others how such technologies could be employed. Three hundred Local Service Providers (LSPs) were trained to support agricultural producers by linking them with government extension services, veterinarians and input suppliers, as well as buyers.

Accessibility

Marginalized groups in Bangladesh still struggle to access the resources they need for livelihoods, and food and nutrition security – and certainly to have access equal to that of other stakeholders who are influential in shaping and driving the agri-food system (Choudhury et al. 2018; CNRS Forthcoming). Progress has been made to a limited extent with regard to some resources for certain groups, such as credit for women. Persistent gender norms and unequal gendered institutions still pose significant obstacles to women and others, such as small farmers, in gaining equal access to basic productive resources such as land and water. Power differences also prevent these groups from accessing markets equally, putting them at risk of discrimination by stronger market actors. As with capacities and skills, examples of inclusion here tend to be at the project level, where implementers must ensure beneficiaries have access to project resources in order for the project to be successful.

Accessibility

Do marginalized groups have access to resources they need to participate in and shape the agri-food system, including influencing its governance?

For example, do they have access to: i) natural resources, including land and water; ii) markets; iii) benefits resulting from community- and landscape-level interventions; iv) technologies, especially ICT; and v) finance?

Access to plant genetic resources. The Plant Varieties Protection Act 2019 (GoB 2019a) ensures that farmers and their associations have the right to apply for protection of farmer-invented or other already protected plant varieties. The Act recognizes the need to protect the genetic resources of landraces and related traditional knowledge. It notes that a farmer may “produce, reproduce, store, use, reuse, exchange or sell the seeds of the protected varieties except for the purpose of commercial marketing.” The Act also allows farmers to participate in benefits from varieties that other

breeders have developed based on protected varieties and to participate in decision-making regarding the protection and use of genetic resources.

Access to markets. Various government projects focus on improving smallholder and women's access to markets. Besides linking demand-driven technology development with agricultural extension for enhanced production, the NATP-2 project, for example, focuses on market-oriented production. By enhancing the capacity of value chain actors, investing in value-adding activities, and pursuing partnerships with the private sector, the project enhances small and marginal farmers' access to and participation in markets (World Bank 2019).

Other projects have focused on helping to open up markets to women. Under the Second Crop Diversification Project funded by the Asian Development Bank (ADB), community groups were formed to market agricultural products. Thirty percent of group membership was women. About 54,000 women were trained on market assessment, value addition and product pricing (ADB 2022). Under the Northwest Crop Diversification Project, a previous project also funded by the ADB, specific spaces were allocated for women in 60 growers' markets and 15 wholesale markets (ADB 2013).

Access to finance. Under the Second Crop Diversification Project, loans were disbursed to cultivate high-yielding varieties of crops. Sixty percent of the borrowers were female farmers. Women entrepreneurs were also trained on how to secure and manage loans (ADB 2022). During the Bangladesh Agribusiness Development Project implemented by the Department of Agricultural Marketing (DAM), about 41,500 farmers, 53% of whom were women, received loans of Bangladeshi taka (BDT) 4.2 billion (USD 49.7 million)² to improve their agribusinesses. The NATP-2 project, mentioned earlier, introduced an Agriculture Innovation Fund (AIF) for research and adoption of innovative technologies (GoB 2019b; GoB 2019c).

Access to ICT. Progress in digitalization over the past decade has also helped Bangladesh go a long way in terms of financial inclusion. According to Bangladesh Bank, for example, in August 2022, 67 million active mobile banking accounts made transactions worth BDT 874.5 billion (USD 8.75 billion) (Bangladesh Bank 2022). A study conducted in agrarian Moheshkhali (reported to be the first digital island of the country) in Cox's Bazar showed that digital services have reduced the gap in accessing financial services by rural dwellers, thus contributing to financial inclusion. The study, however, still concludes that although digital services have eased and bridged the gap in physical access to financial services, users still face constraints due to a lack of basic connectivity, financial literacy and social awareness (Aziz and Naima 2021).

Digital tools can provide remote services and technical support that help to mitigate geographic barriers and promote inclusion in other ways as well (Climate Investment Funds 2022). Evidence from three remote locations in Bangladesh (Khan Tithi et al. 2021) showed that an ICT service that offered context-specific information compatible with a user's literacy level had an effective impact. Call centers provided useful agricultural information to project participants, including women, in haors (a type of wetland), *charlands* (riverine islands), and coastal regions, while the offline app 'Bhutta' was popular among *charland* dwellers as it provided illustrative information on maize cultivation.

Financial Resources

Even if policies, programs and projects recognize the needs of marginalized groups, and even if those groups have the appropriate skills and capacities and adequate access to resources to participate in governance and in the operation of the agri-food system itself, the government must still ensure that the level of public expenditure is sufficient and directed appropriately to make socially inclusive actions meaningful.

Financial Resources

Are financial resources adequate for support of the operation of the agri-food system and needed agri-food system change, including response to climate change, with meaningful inclusion of i) women and girls (gender); and ii) other marginalized communities?

Agriculture and National Gender Budget (GoB 2022c). The national Gender Budget Report monitors how different ministries spend on items to promote women's equality and ensure women's increasing participation in national development. Currently, one-third of the national budget, and about half of the budget of the Ministry of Agriculture (MoA), is spent on programs and projects that seek to involve and empower women.

² USD 1 = BDT 84.90 (as at end of 2019)

In the national budget of 2020–2021, the women’s share (the gender budget) was 33% of the total budget of BDT 4,601.6 billion. In that year, the MoA’s total budget (both operating and development budgets) was BDT 129.29 billion, 42% of which was identified as gender budget allocation. This proportion increased in the following fiscal year when the gender budget stood at 48% of the MoA’s total budget. In the current fiscal year (2022–2023), the national budget is BDT 6,780.64 billion, with 34% of it being allocated as the gender budget. The MoA’s budget is BDT 242.24 billion with almost half, 49%, demarcated as the gender budget.

Agriculture and Bangladesh Climate Budget (GoB 2021). Despite the Covid-19 pandemic, the Government of Bangladesh has maintained climate-relevant budgets for all 25 relevant ministries and divisions throughout the period. For example, in the 2017–2018 fiscal year (FY), before the pandemic, the climate-relevant budget was 7% of the total national budget. In the FY 2020–2021, it was again 7%. The climate-relevant budget increased to 8% in the FY 2022–2023. In the FY 2017–2018, the climate-relevant budget of the MoA was 39% of its total budget of BDT 92.38 billion. In the FY 2022–2023, the ministry’s budget had increased to BDT 242.24 billion, and the climate-relevant budget was 36% of that total. The climate-relevant resources available to the MoA from the FY 2017–2018 to now have therefore more than doubled.

Climate Finance. Bangladesh has received assistance from a number of international climate funds, such as the Least Developed Countries Fund (LDCF) managed by the Global Environment Facility (GEF), Adaptation Fund, Climate Investment Funds (CIF) and the Green Climate Fund (GCF). Over the last decade or so, Bangladesh has received a modest number of projects to increase the resilience of climate-vulnerable communities (Irfanullah 2022). A few of these have been agriculture projects or have had agriculture as a prominent component. For example, the United Nations Development Programme (UNDP) is implementing a USD 33-million GCF-funded project to enhance the adaptive capacities of coastal agricultural communities to cope with climate change-induced salinity (Green Climate Fund 2022a). The project has 720,000 beneficiaries, with a strong focus on helping women develop more resilient livelihoods. Similarly, Palli Karma-Sahayak Foundation’s (PKSF) project Extended Community Climate Change Project-Flood (ECCCP-Flood) is being implemented in flood-prone regions of Bangladesh and uses a community-led, gender-sensitive consultative adaptation model that prioritizes female-led households (Green Climate Fund 2022b).

This analysis provides only a snapshot and an indication of the expenditures currently being directed towards inclusion. In relative terms, the Gender Budget Report at least indicates that attention to women in public expenditures is significant. At the same time, however, this analysis does not examine whether or not this is “adequate” to achieve gender goals, such as equality and empowerment, particularly given the historically pervasive nature of discrimination. Similarly, the study does not assess whether the current level of expenditures targeted to other marginalized groups, such as smallholders, fisherfolk, children, youth, the elderly, persons with disabilities and other communities discriminated against on the basis of class or ethnicity, is, in fact, “adequate” to promote and support their social inclusion in agri-food system governance and operation. Determining directed budget expenditures for these other groups and determining whether funding is “adequate” should be a priority.

Knowledge system

Decision-makers and stakeholders should have the knowledge they need to promote, shape, operate and work within inclusive governance elements and structures. Such knowledge should be evidence-based and seek to make clear what conditions marginalized groups face and how to ensure that governance, including the design and implementation of policies and programs, takes their concerns into account and addresses those concerns effectively. In a demonstration of how these different dimensions work together, relevant knowledge will underpin the capacities and skills of these groups to participate successfully in governance mechanisms and the agri-food system itself.

Knowledge system

Do the governance structures, including policies and programs, take available knowledge into account to support inclusion by i) understanding the problems, challenges and risks faced by different marginalized communities; ii) appreciating local and indigenous knowledge; iii) harnessing both academic and traditional knowledge; iv) co-generating knowledge in collaboration with the local community; and v) making information and other knowledge available for use as a public good?

Some government agencies and other project implementers, such as NGOs, are already expressly valuing the knowledge held by these marginalized groups. For example, the Plant Varieties Protection Act 2019 (GoB 2019) highlights the importance of knowledge obtained from traditional farmers. The Act has explicit policies to conserve traditional crop and plant varieties used by these farmers as well as related traditional knowledge about production and use.

But this seems to be the exception, and in any case, little documentation exists on the extent to which agri-food system governance in Bangladesh is evidence-based, whether from academic studies or lived experience. But the methods for collecting and acting on needed evidence and data, such as participatory action research, do exist. As noted above, some organizations in Bangladesh already use participatory approaches to work with marginalized groups, ensuring that programming takes into account the knowledge from those groups.

Participatory methods, when done well with truly participatory mechanisms that feed results back to beneficiaries and project managers, can help to adjust actions and, over time, narrow the research-to-action gap, leading to increased impact. In one example which aims to generate knowledge of climate-vulnerable households, ActionAid Bangladesh, an NGO, has developed an action-oriented research approach called GonoGobeshona (People's Research) that systematizes the collection and use of citizen knowledge (Raihan et al. 2010). This approach systematically taps into the knowledge that these households already have in order to analyze their challenges. Delivering this knowledge back to them helps them realize their collective potential and strengths to identify, devise and implement solutions to their own problems. At the same time, the process helps them to develop adaptive capacities and empowers them to understand and claim their rights from service providers.

The Nobo Jatra project (World Vision Bangladesh - Nobo Jatra n.d.), mentioned earlier, employs another approach that also encourages beneficiaries to identify and act on their own shared knowledge. Nobo Jatra designed and implemented a promotional graduation model inspired by BRAC to graduate 14,000 households from extreme poverty over two years by directly engaging them in agricultural and other income generating activities. Using a Collaborating, Learning and Adapting (CLA) Framework, the project encouraged collaboration among stakeholders to assess and build on technical evidence, pause and reflect on the intervention to add knowledge from experience, and undertake participatory, adaptive management of the project.

These examples suggest that while the current knowledge base is fairly weak, as the generation, uptake and use of evidence in promoting inclusive governance appear to be limited, Bangladesh at least possesses a base in methods and experience from which to launch inquiries and address the knowledge gaps to inform more inclusive governance.

Innovation

Socially inclusive governance may also require changes in the standard ways of doing things. Inclusive governance will pay attention to the opportunities that exist for creative innovation that can enhance socially inclusive governance and meaningful participation by marginalized groups. Being on the lookout for and recognizing innovation, particularly from these groups themselves as they navigate livelihoods and the agri-food system, is critical for promoting and strengthening socially inclusive governance.

Innovation

Is innovation harnessed in policy and practice in response to changing climate and environment, society and economy?

In traditional agriculture. Floating agriculture is one example of innovation that comes from marginalized groups, in this case small farmers, which has had a broader effect on inclusion as well (Irfanullah 2021). Since 2004, floating agriculture has been promoted as an indigenous innovation to adapt to the impacts of climate change in Bangladesh. Historically practiced in the south-central part of Bangladesh, women's participation in floating agriculture was traditionally limited. Women made seed balls to germinate the seedlings in the homestead but did not undertake other activities, such as making the floating beds (using water hyacinth plants), transferring the seed balls to the beds, nurturing the plants, and harvesting and marketing the produce. If the beds were close to the home, women might assist with the preparation and cultivation of the beds, but marketing remained exclusively the job of men.

Things changed in the first half of the 2000s when NGOs started scaling up floating agriculture in the northwest and northeast areas of Bangladesh. Focusing on household food and nutrition security and poverty alleviation of project participants, floating agriculture has since been scaled up widely by NGOs in the region, and women have become the primary participants and beneficiaries. Under two subsequent projects, the Bangladesh MoA has now taken on and scaled up this technique in 24 of the 64 districts of Bangladesh, although project documents do not clearly detail the extent of women's participation.

Through this local innovation, women are now a significant part of every step of the production system, from making the beds to harvesting the vegetables, often supported by the male members of the family. Still, since these projects have primarily focused on household consumption, they have missed an important opportunity to promote further change and inclusion. By not considering how floating agriculture can contribute to household income and expanding project activities to sales and marketing, men remain in control of these aspects of floating agriculture.

In stakeholder engagement. Innovation Platforms (IPs) are networks of stakeholders, including representatives of marginalized groups, that contribute to innovation by establishing a collaborative structure to systematically capture and disseminate ideas that emerge from the way people do things (Brown et al. 2022). IPs may be established around a particular commodity or a system to identify bottom-up solutions to overcome identified problems.

IPs have been used to promote conservation agriculture in Bangladesh and other South Asian countries. An assessment of 10 IPs in two districts of Bangladesh showed that the performance of the IPs varied due to a number of factors, such as level of participation, degree of competence in facilitation and negotiation, and ability to analyze opportunities for production and marketing. Despite these challenges, IPs did serve their purpose by providing technologies, practices and services to increase crop production in a cost-effective manner.

Nonetheless, while some examples exist of how these marginalized groups have brought innovation into the agri-food system in ways that have expanded participation, as with knowledge systems, there appears to be no assessment of whether, and to what extent, innovations from marginalized groups are systematically considered and incorporated into governance.

Broader Challenges to Socially Inclusive Governance in Bangladesh's Agri-food Systems

Taken together, these seven dimensions — directed at women and other marginalized groups — will help to ensure that policies and programs are socially inclusive and that they meaningfully represent and allow participation of these groups in the agri-food system. Although presented separately, it is evident that these elements should be simultaneously present in agri-food system policies and programs.

Policies and programs must acknowledge the reality of women and other marginalized groups in terms of the context of their lives, the roles they play in the agri-food system, the challenges they face, and the relevant policies, programs and investments needed to address issues of equity and wellbeing. Mechanisms for participation must ensure the voices of these marginalized groups are heard in policy formulation and implementation so that policies and programs accurately take into account the situation of these groups and their possibilities of response.

As noted, these groups must themselves have the capacities and skills, as well as the means to access the resources they need, to actively participate in policymaking, program design and implementation, and to respond to the policies and programs shaping the agri-food system. Those policies and programs should reflect best practice and the best available evidence, drawn from academics, practitioners and the lived experience of beneficiaries. Integrated into this is the idea that the knowledge system should pay attention to the possibilities of learning and innovation as well. Governments must further ensure that sufficient funding is available to adequately support these different dimensions and guarantee meaningful participation and actions of women and marginalized groups in the shaping and operation of the policies, programs and governance mechanisms for agri-food systems.

Reflecting on these dimensions helps to unpack some of the issues surrounding governance and social inclusion. For example, the descriptions of the dimensions make clear that meaningful efforts at social inclusion must work across government actors, across sectors and ministries, across different parts of government (whether legislative or administrative) and across different governmental levels. For intent to turn into reality, inclusion cannot be merely mentioned in policy documents. Adequately funded programs and projects must put policies into practice. Implementers must work to ensure coordination horizontally across agencies as well as vertically from the national to the local level and encourage collaboration with implementing partners, households and other stakeholders. In addition, the attention to each dimension is not likely to be handled in equal detail in each policy, plan, strategy or project document because the level of actions is different (as with, for instance, the attention to capacity building) or the aspects of the dimension are different (for example, the type and mechanism of representation).

These comments simply mean to suggest the kind of integration among dimensions that needs to take place for governance to be truly socially inclusive. They also provide an indication of aspects of this analysis that need to be taken further in future studies to really gauge the extent of gender and social inclusion in the governance of Bangladesh's agri-food system.

In this initial assessment, it was highlighted how policies and programs take the concerns of women and other marginalized groups into account and mapped 23 key documents against seven dimensions of inclusive governance. The analysis did not inquire into the actual decision-making structures and mechanisms themselves to know what those processes are, how and which groups actually participate in those processes, who actually influences and makes

policy and program decisions or how they do so. Nor did the study go beyond this to look specifically at whether these governance mechanisms are functioning effectively and whether the identified inclusive policies and programs are being effectively implemented, thus actually contributing to inclusion.

This review of documents, however, did reveal a number of challenges to inclusion. Unsurprisingly, these challenges often cut across the dimensions, demonstrating not only the interlocking nature of the dimensions but also how much marginalized groups suffer from exclusion *across* the dimensions. Key among these challenges are a lack of basic understanding and knowledge about how individuals who belong to these groups live their lives, including the discrimination and acts of exclusion they consistently face. Understanding is vital to the fundamental dimension of these groups being fully and accurately represented in governance.

But significant gaps in knowledge still exist. For example, despite increasing feminization of agriculture, women's contribution to Bangladesh's agriculture is likely still underreported, as in other South Asian countries (Doss 2014; Pattnaik and Kuntala 2022). Policy and governance-related challenges include existing laws that do not treat women equally, and, despite the specific project examples noted above, Bangladeshi women still have limited access to information, training, technical support, and agricultural services and equipment. Financial barriers to inclusive governance include inadequate investment opportunities (e.g., in absence of collateral for loans) and the continuing poor financial literacy of women.

Other social challenges include the limited mobility of women, cultural hegemony, society's attitude towards women entrepreneurs, dominance of male staff in agricultural extension services and marketplaces dominated by men. Gaps between the wages of male and female agricultural workers still exist, despite much effort to address the disparity. Confining women's involvement to homestead-based food production may also make them vulnerable to risks from climate change.

Lack of attention to women in agriculture exacerbates the interlinked problem of climate change. Bangladesh's agriculture and gender-related policies overlook how climate adversities affect women and what gender-sensitive measures should be taken to jointly address climate and agriculture challenges. Lack of gender-disaggregated agricultural data is a major hindrance to strong gender-responsive climate action. Knowledge about women's roles in climate resilience can also vary across geographies in Bangladesh. For example, knowledge about communities of coastal islands is especially limited compared with communities of the mainland coast.

Adoption of innovations, which is crucial for tackling climate change, is limited due to various factors, including financial (e.g., lack of credit and awareness), environmental (e.g., heterogeneity of risks and responses across vulnerable areas, scarcity of resources and knowledge to respond) and social (e.g., conflict and abuse of political power) factors. Gendered aspects of low adoption of innovations include inadequate land availability, limited education and training, and poorer access to capital, power supplies and infrastructure.

The policy ecosystem in Bangladesh further represents a significant institutional barrier to inclusive governance of the agri-food system. Many argue that Bangladesh's national policies often overlap, are duplicative, and promote conflicting visions, priorities and approaches. In addition, coordination and collaboration among different public and private agencies are disjointed and inadequate for effectively implementing organizational mandates (CNRS Forthcoming). Documenting and sharing best practices regarding inclusive governance requires systematic cross-learning structures among the concerned organizations, but evidence of such learning is limited.

A key challenge to inclusive governance in Bangladesh, which is also common for many other countries, is the concentration of decision-making power in bureaucratic hierarchies (Rahman et al. 2022). For example, an analysis of 573 climate adaptation development projects in Bangladesh revealed that superbureaucrats of the country control climate decision-making and policymaking processes at all levels, approving the positions which hold power and even creating new institutions. Inclusive governance would require these processes to be open to meaningful participation and influence by marginalized groups. As noted earlier, future analyses should examine these bureaucratic processes carefully to determine to what extent the voices of marginalized groups can in fact be mainstreamed and heard.

Unfortunately, corruption in Bangladesh is also rampant and diminishes efforts at inclusion. In 2021, Bangladesh was ranked 147 out of 180 countries by the Corruption Perception Index of Transparency International (Transparency International 2022). Corruption not only weakens mechanisms of inclusion that link voices of the marginalized with decision-making processes but also affects the operation of the agri-food system itself. For example, in the fertilizer market, dealers tightly control supply and make significant profits by selling fertilizers at prices much higher than the government-declared rates. Farmers able to pay bribes can access the fertilizer they need, while those with fewer connections and less power, such as small, poor farmers (Anik and Bauer 2017), including women farmers, cannot, thus affecting their production and their livelihoods. The extension services, on the other hand, essentially suffer from nepotism and negligence of duty.

Opportunities and Actions for Inclusive Governance in the Agri-food Systems of Bangladesh

To achieve sustainable agri-food systems for healthy diets for all in Bangladesh, the concerns, aspirations and voices of all, including marginalized groups, must be recognized. These groups are active participants and important contributors to the functioning and efficiency of the agri-food system, and their wellbeing is prioritized as a key development outcome in concrete global and national commitments made by the government.

If Bangladesh is to continue its historical trend of economic growth, it must address and go beyond Tisdell's (2002) concern with sustainable utilization of the natural resource base. Policies and programs can only effectively achieve overarching economic, social and environmental goals if they take the livelihoods and contributions of all, particularly marginalized social groups, into account.

This analysis examined specifically how key dimensions of social inclusion are reflected in agri-food system governance in Bangladesh, particularly in terms of policies and programs. In a significant parallel to a recent review of how nature-based solutions — another relatively new concept — are being integrated into Bangladesh agricultural and environmental policy (Smith et al. 2021), this study found that recognition of marginalized groups was “patchy and inconsistent.” While the concerns of women were more prominent and common than those of other groups, such as youth, the elderly or ethnic communities, representation and participation were not consistent in terms of analysis or treatment across policies for any group. As noted above, the details of inclusion may differ based on how prominent the dimension is at different levels of administration or stages of the policy process. For example, detailed attention to capacity strengthening may be more prominent when considering what to do at project or program level, rather than policy level. But attention to the dimension should nevertheless be paid, in an integrated way, across the system.

It is clear in any case that inclusion needs greater attention in policy implementation. The challenge of translating policy into action on the ground is long-standing (Dewan et al. 2014). As with NbS, current weaknesses may be due to a lack of awareness of the importance of inclusion or the issues facing these groups by those who control the policy development process. The nature of marginalization compounds this gap as institutional and cultural biases lead to exclusion of these groups from such processes (Smith et al. 2021). Even if these groups are aware of these processes and certainly of their effects, with limited voice they often do not have access to them. Institutionally, as with NbS (Smith et al. 2021), greater inter-ministry cooperation, additional funding, promotional campaigns to raise awareness, more evidence-based research and capacity building are useful to support greater inclusion and involvement of these marginalized groups.

In sum, Bangladesh needs to better explore and address opportunities for marginalized groups to be represented and actively participate in agri-food system governance. This includes taking a deeper look at persisting social exclusions in the governance of agri-food systems. Such an understanding can help identify actionable, inclusive pathways to transform Bangladesh's agri-food system (Irfanullah et al. 2023).

In more specific terms, the objective of the study was to analyze how policies mapped to key dimensions of gender equity and social inclusion that are fundamental to transforming agri-food systems in Bangladesh (Irfanullah et al. 2023). To address these and other challenges, the authors propose four sets of actions centered around strengthening attention to the seven dimensions:

1. Ensure intentional and consistent representation and participation of marginalized communities in agri-food system policies and programs.

Representation and participation by women and other marginalized groups in governance structures and decision-making processes are essential to ensuring that agri-food policies and programs are shaped to respond to their needs and make sense and will be effective in their particular context. Participation ensures that policies and programs will more effectively achieve national and global visions and commitments for economic, social and environmental progress.

This review demonstrates that Bangladesh's recent agri-food policies and programs do indeed recognize, to varying extents, the marginality and vulnerability of women and many marginalized groups. However, significant variability exists in the depth and breadth of presence and attention to gender equity and social inclusion across the web of agri-food policies and projects. The meaningful participation of these marginalized groups in the formulation and implementation of policies and projects by government and public agencies is also limited (Irfanullah et al. 2023).

To strengthen representation and participation, government and civil society should clearly identify these groups, including women, youth and children, the elderly, persons with disabilities and disadvantaged ethnic communities, and raise awareness among decision-makers and other stakeholders who design agri-food policies and programs about the livelihoods, conditions and roles of women and other marginalized groups in agri-food systems, making

clear their importance to agri-food system transformation. Government and stakeholders, including the marginalized groups themselves, should work to create a more inclusive and just governance system that ensures these groups are represented and have avenues for active, meaningful participation in the full spectrum of structures and processes related to agri-food system governance.

The participation of these groups in governance across the agri-food system needs to be explored further, as does the depth and extent of participation across the agri-food system in Bangladesh. Research looking at water governance suggests that even when policies seem to include marginalized groups, such as women, actions tend to be geographically or institutionally limited, for example, to a specific project or program, and so interventions are not scaled up nationally (Dewan et al. 2014). While this aspect was not examined closely here, this review, which did capture some specific project experiences, did not suggest the experience with agri-food policies and projects is any different.

2. Improve capacities and skills and ensure access to resources needed to respond to or shape the agri-food system.

This review notes how various projects dealing with the agri-food system in Bangladesh are attempting to improve the capacities and skills of marginalized groups and enhance their access to resources necessary for participation and the reaping of project benefits. For these projects to have their intended effects, however, members of these groups must have the capacities, skills and resources needed to participate in these projects actively and productively.

As noted, training for some individuals in these groups is being provided. Numerous projects led by public agencies and NGOs have trained women in crop production, marketing, entrepreneurial literacy and enterprise development. Increasingly, women are taking out loans to support production and other business activities. Digital services are also increasingly designed to reduce gender gaps in accessing financial services and so contribute to financial inclusion (Aziz and Naima 2021; Irfanullah et al. 2023). However, recent evidence shows that these interventions are often technocratic and can obscure power differences and elite capture of decision-making and public resources, services and finances (CNRS Forthcoming).

Policies and programs must also be careful not to unwittingly incorporate social stereotypes in terms of how they structure the engagement of women and other social groups with the agri-food system. This can inhibit inclusion and stall increased economic productivity, even if skills, capacities and resources are available. Access to information, training, technical support, agricultural services and equipment, and inequity in wages can be affected not only by more readily visible discriminatory legal and social structures but also by these traditional perceptions. Women, for example, can be affected by cultural hegemony, social norms, values and practices, and traditional male dominance in, for instance, agricultural production and marketing and other aspects of the agri-food system sphere. Other groups can be similarly impacted by social, political and economic inequalities. These implicit and explicit barriers rooted in traditional social structures must be addressed to open up the operation and benefits of the agri-food system to all (Irfanullah et al. 2023).

The institutional environment can pose another significant structural barrier. Research suggests that there is a lack of consistent institutional capacity and of space, scope and monitoring of processes of participation. Thus, even when individuals have skills, capacities and resources, the lack of an enabling environment that welcomes and provides opportunities for participation inhibits them from raising their voices, lowering the potential for inclusion in decision-making and implementation, and generally influencing governance (Irfanullah et al. 2023).

Then, as with representation and participation, further and more consistent attention needs to be paid to capacity, skills and access to resources. This could include, for example, a broad analysis of what skills, capacities and resources are needed and what related actions need to be taken to ensure engagement of these groups with the agri-food system. Differences across geographies, livelihoods and groups themselves should be noted. Policymakers and practitioners should work with these groups to ensure this dimension is consistently reflected and scaled up across all agri-food system policies and programs.

3. Provide adequate financing for policy and program interventions.

Adoption of gender budgeting demonstrates that the government of Bangladesh has the political will and capacity to meaningfully take gender into account in the design and implementation of government policies and programs. Such budgeting requires understanding conditions, identifying opportunities and entry points, and tracking expenditures and actions. Following up on each of these elements ensures effective translation of commitment to gender equality into actual practice.

However, several challenges have been reported in the implementation of this good practice. First, a continuing lack of gender-disaggregated data and a specific benchmark for objectives and targets hinders monitoring of impact and

outcomes. This signals a need for more robust gender expertise in the Ministry of Finance, which is responsible for overall management and review of the Gender Budget (Bidisha et al. 2021).

In addition, others have noted that policy commitments often fail to translate into practice, primarily due to a lack of institutional capacity to mainstream gender across ministries, gaps in legislation and a failure to adequately budget for and monitor gender-related results (UN Women n.d.). This review also noted limited information on whether the amounts and specific allocations of expenditures were indeed “adequate” to accomplish intended goals and support inclusion.

Bangladesh’s commitment to the annual preparation of a national Gender Budget report is an excellent foundational step towards understanding and guiding the impact of government policies for empowering women. In a similar vein, the Ministry of Finance also prepares a budget on climate financing, although there is as yet little effort to connect this analysis with other international climate funds (Irfanullah 2022; Irfanullah et al. 2023). The Gender Budget and the climate budgeting exercise provide a clear model for what can and should be done for the analysis of public expenditures for other marginalized groups.

4. Generate and disseminate needed knowledge to ensure understanding of conditions, needs, and appropriate policies and programs for marginalized groups and to encourage evidence-based decision-making. Pay attention to experiences of beneficiaries and stakeholders to capture innovations to improve impact.

Social exclusion and inattention to marginalized groups often mean there is relatively little knowledge about their livelihood strategies and needs – and, therefore, about what policies and programs are most appropriate and will have the greatest impact in achieving policy goals (Masud-All-Kamal and Nursey-Bray 2021). Discrimination further impedes the coproduction and co-ownership of knowledge, and the consequent weak institutional structures inhibit cross-learning (Irfanullah et al. 2023).

This review notes that little documentation currently exists about how these different groups engage with agri-food system governance in Bangladesh, with perhaps more information available about women than any other group. Institutional capacity for generating, collecting, analyzing and using information exists in Bangladesh — in government agencies, in formal research institutions, such as universities and research centers, and CSOs, as well as among the communities themselves. Systematic methods for coproduction and co-ownership of knowledge, such as participatory action research and innovation platforms, are showing to be useful approaches.

Harnessing, packaging and disseminating this knowledge in participatory ways, in combination with support for the other dimensions, would be an important contribution to the promotion of social inclusion in agri-food system governance in Bangladesh. Knowledge generation and use must ensure that traditional, discriminatory perceptions, structures and ways of doing things are not reinforced and that creative innovation for empowerment and inclusion is encouraged (Brown et al. 2022; Mukherji et al. 2023).

In sum, by analyzing key policies and programs through a framework of seven dimensions of social inclusion, this study has provided an initial assessment of gender equality and social inclusion (GESI) in agri-food system governance, policies and programs of Bangladesh. The study has emphasized the importance of promoting inclusion of women and other marginalized groups in policies and programs, as well as the progress Bangladesh has made in terms of social inclusion and what opportunities exist to further strengthen GESI-informed agri-food system governance.

Greater attention to and inclusion of women and marginalized groups not only responds to imperatives of human rights and equity but also to achieving national priorities, including continued economic, and especially agricultural, growth; improved social outcomes, including sustainable livelihoods and food and nutrition security; response to climate challenges; sustainable natural resource management, as well as strengthened participatory governance overall. This initial survey of how current agri-food system policies and programs reflect concepts of gender equality and social inclusion hopefully provides a foundation and source of inspiration for further strengthening of commitment and action.

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