RESEARCH PROGRAM ON Climate Change, Agriculture and Food Security

CGIAR CCAFS

Info Note

Closing the gender gap in climate-smart agriculture

A brief review of recent approaches relevant to CSA programs

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AUGUST 2015

Key messages

- Policy-relevant evidence on gender and CSA must go beyond adoption of technologies to consider the politics of resource access and decision-making.
- Institutions that bring about gender-equitable CSA will emphasize women's participation, leadership and capacity building.
- Emerging CSA policies are weak on gender inclusion.
- The experience of climate funds offers considerable guidance for better practice on gender within CSA programs.

Introduction

"Climate-smart agriculture" (CSA) has become a central concept shaping action and bringing together constituencies at the global level on agriculture and climate change. In essence, climate-smart agriculture pays explicit attention to how interventions in agriculture and food systems affect each of three key outcomes: food security, adaptation and mitigation (FAO 2013). The climate-smart agriculture movement is not prescriptive about how best to achieve these outcomes, nor how to manage the inevitable trade-offs – the idea is that locally appropriate priorities and solutions will be generated. A key question arises as to the winners and losers from these processes, in terms of gender as well as other social dimensions, and whether climate-smart agriculture help transform agriculture and rural development in ways that achieve major gains for gender equity.

A narrow view of climate-smart agriculture confines possible actions to on-farm technical practices, such as soil and water management, use of new varieties, or integration of trees into cropland and pastures. But leading proponents of climate-smart agriculture lay out a wider fourfold agenda for action: building policy-relevant evidence, strengthening national and local institutions, fostering coherence between climate and agricultural policies, and stable dedicated financing (Lipper et al. 2014). These four areas provide a useful framework for analyzing how the concept and the practice of climate-smart agriculture currently address gender gaps. Since climate-smart agriculture is a new field, key sources in the literature tend to be project documents and reports rather than peer-reviewed journal papers.

Building policy-relevant evidence

Evidence to support cost-effective context-based policy decisions remains weak for the specific objectives of climate-smart agriculture. Two areas stand out in which evidence is needed: on climate impacts and associated responses at multiple scales under conditions of uncertainty, and on adoption of climate-smart agricultural practices and institutions in different agro-ecological and socio-economic contexts (Lipper et al. 2014). It is the second of these areas – adoption – that carries a strong gender dimension.

The global research community sees the gender dimensions of adoption as a priority area for science on climate-smart agriculture (Steenwerth et al. 2014). This emphasis on gender-differentiated adoption is reflected, for example, in the theory of change of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), which seeks to undertake research that can inform, catalyze and target adaptation and mitigation solutions to women and other vulnerable groups (Kristjanson 2013). Recent policy-relevant findings on adoption of climate-smart agriculture have focused on *how* gender matters, rather than simply demonstrating that it makes a difference. For example, research shows that women have less access than men to information on climate-smart agricultural options (Jost et al. 2015).

Yet as the threats of climate change to food security accelerate, there is growing evidence and amplified calls for a transformative climate-smart agriculture that delivers a globally sustainable and equitable future food system, rather than incremental implementation of improved techniques and institutions (Neufeldt et al. 2013). This

vision would necessitate a policy-relevant research agenda beyond adoption by farmers of climate-smart practices and services. In this transformative version of climate-smart agriculture, the importance of gender is increased in two ways.

First, a transformed food system involves wholesale shifts in diets and nutrition, food trade and access, agricultural production areas, and cultures of consumption and waste. Women's empowerment plays a key role in household nutritional outcomes, for example in Nepal (Malapit et al. 2013). Decisions made within households drive not only nutrition but also the entire upstream food system, through signals of demand dependent on patterns of consumption and waste in the household (Garnett 2011). Additionally, the food industry, whether formal or informal, is a dominant sector for women's employment and participation in many countries (Allen and Sachs 2007; Floro and Swain 2013).

Second, a transformative approach to climate-smart agriculture requires greater attention to gender relations, rather than using information on gender differences simply as a means to maximize rates of adoption of climate-smart technologies. Is the policy goal to maximize women's access to information and technologies within existing power relations (e.g. to use information channels other than radio and mobile phones to reach women who don't have access)? Or is the policy goal to tackle distribution of assets and decision-making where these asymmetries are the underlying cause of women's vulnerability to climate change? The second question provides for a much wider agenda that addresses the political economy of vulnerability and capacity. This extends policy-relevant research on climate-smart agriculture to gender issues around migration in the long-term or short-term (Camlin et al. 2013), off-farm employment (Alston and Whittenbury 2013) or outside claims on land and resources (Cameron 2012), all in the context of prevailing market conditions and government policies.

Strengthening national and local institutions

The scale of climate change necessitates social and institutional over and above individual responses; the importance of institutions from global to local is well known (Adger et al. 2005; Agrawal 2009). Proponents of climate-smart agriculture place emphasis on enhancing local institutions, to increase agency among those with the strongest local knowledge who may be marginalized from formal policy processes (Kristjanson et al. 2013). Institutions relevant to climate-smart agriculture range widely, including: collective action such as equitable and socially inclusive systems for land and water management, multi-stakeholder processes for local and national planning, comprehensive risk-management and crisis-response mechanisms, social protection programs, and access to inputs and markets that underpin farmers' capacities to adopt new practices (Lipper et al. 2014). Notably, these institutions go beyond provision of climate-specific capacities (e.g. access to heat-tolerant crop varieties) to a much broader base of generic capacities, such as social protection. Empirical evidence from Brazil, Mexico and USA suggests we need both; investing in either specific or generic capacities alone does not lead to desired outcomes for men and women's resilience to climate change (Eakin et al. 2014).

If institutions are at the heart of climate-smart agriculture, is there sufficient attention to how institutions deliver decision-making powers and benefit-sharing differentially to men and to women? While research has not yet been undertaken for climate-smart agriculture per se (i.e. agriculture that explicitly combines food security, adaptation and mitigation objectives), a review across multiple sectors finds evidence that women's political participation and leadership can improve access to public goods and services, create more gender-egalitarian policies, and progressively shift social norms (Domingo et al 2015).

Fostering coherence between climate and agricultural policies

Coherence between climate and agricultural policies has grown tremendously in recent years. At the global level, agriculture is in the 2015 and 2016 agendas of the Subsidiary Body on Scientific and Technical Advice of the United Nations Framework Convention on Climate Change (UNFCCC), and is unlikely to be excluded from a post-2015 multi-lateral agreement on climate change. At the national level, agriculture is included in about 80% of plans on mitigation and adaptation (Action Aid 2011, Wilkes et al. 2013). Climate considerations are also being incorporated into mainstream agricultural planning and policy-making; a recent example is Nigeria's National Agricultural Resilience Framework (Government of Nigeria 2014). But performance on gender is variable. For example, only a third of National Adaptation Programs of Action in sub-Saharan Africa include gender in any way, such as in diagnostics, planned actions, or monitoring and evaluation (Holvoet and Inberg 2013). In Uganda, gender is treated as an addendum to coordinated climate and agriculture policy, without budget allocation or defined mechanisms for implementation (Acosta et al. 2015).

More recently, since early 2015, African countries supported by the New Partnership for Africa's Development Comprehensive Africa Agriculture Development Programme (NEPAD-CAADP) are embarking on design of country-specific climate-smart agriculture programs. The frameworks for these programs provide an insight into the inclusion of gender in climate-agriculture policies: in the standard format, Result Area 7

(of 10 Result Areas in total) is "Opportunities for women and youth in CSA and agribusiness." This framing is encouraging in its explicit inclusion of women, plus its understanding of both women and youth as positive agents of entrepreneurship and social change, rather than as victims of climate change. On the other hand, it runs counter to arguments for mainstreaming of gender and risks that the only opportunities for women and youth, who make up 75% or more of populations in the relevant countries, will be in this single Result Area.

Stable dedicated financing

For a variety of reasons, agriculture, particularly smallholder agriculture, has to date received a small share of climate finance despite contributing about a quarter of global emissions and requiring substantial investment in adaptation to maintain food security. On the other hand, inclusion of gender issues in the major global funds is improving. There is now an extensive non-academic literature on gender dimensions of global and national climate finance, particularly improving access for poor women (e.g. Schalatek and Nakhooda 2012, Arend and Lowman 2013, Adams et al. 2014). These studies call for gender performance criteria, earmarking of funds to projects that enhance gender equity, inclusion of women at all levels of governance, simplification of processes and capacity strengthening to improve women's access to funds, and pilot projects to demonstrate success. Partly in response to these types of studies, climate funds are increasingly mainstreaming gender issues. The Global Environment Facility (GEF) released a gender strategy in 2012 that requires all applicants to have their own gender strategy that meets minimum requirements, while the newer Green Climate Fund (GCF) has drafted a preliminary gender policy that will provide gender-responsive governance, results management, resource allocation, capacity building, knowledge generation and communications.

A key source of funding for climate-smart agriculture among smallholder farmers is IFAD's Adaptation in Smallholder Agriculture Program. The grants under this program are aligned with IFAD's gender strategy and are expected to deliver positive outcomes for women's economic empowerment, decision-making voice and workloads. The project designs feature gender analyses and consultations with both women and men in the target areas to identify priorities for investment. Projects then specify targets for gender equity. Some targets are process-oriented; for example in Nigeria 40% of places in enterprise training are reserved for women. Other targets focus on outcomes, such as a biofuel intervention in Mali that targets that 90% of women will report a reduction in workload as a result of involvement in the project (Chakrabati undated).

Conclusion

As a new concept, climate-smart agriculture presents the danger that policy-makers and researchers "re-invent the wheel" rather than grounding practice firmly on decades of experience in agricultural development and progress on gender equity. Emerging CSA policies and plans lack the attention to gender that would enable the transformative change that supporters of CSA claim to seek. Yet there is substantial evidence and guidance available on what works to achieve gender-equitable outcomes at scale. Most fundamentally, CSA has a much greater chance of success if we confront the politics of resource access and participation from the start, rather than treat CSA as a predominantly technical challenge.

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CCAFS and Info Notes

The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) is a strategic partnership of CGIAR and Future Earth, led by the International Center for Tropical Agriculture (CIAT). CCAFS brings together the world's best researchers in agricultural science, development research, climate science and Earth System science, to identify and address the most important interactions, synergies and tradeoffs between climate change, agriculture and food security.

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CCAFS is supported by:

CGIAR Fund, IFAD, Canada, Danida, Irish Aid, UKaid, Australian Government Australian Centre for International Agricultural Research, IICT, Ministry of Foreign Affairs of the Netherlands, Swiss Agency for Development and Cooperation SDC, New Zealand Ministry of Foreign Affairs & Trade