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NEW RESEARCH METHODS AND TRAINING MATERIALS

GENDER AND CLIMATE CHANGE RESEARCH IN AGRICULTURE AND FOOD SECURITY FOR RURAL DEVELOPMENT

Climate-smart agriculture contributes to climate change adaptation by sustainably increasing productivity and resilience; mitigates climate change by reducing and removing greenhouse gases; and enhances the achievement of national food security and development goals.

CLIMATE CHANGE does not affect everyone in the same way. Men and women are affected differently. Their responses to the impacts of climate change also differ, especially when it comes to safeguarding their food security and livelihoods. Although women are important food producers and providers, they have limited access to and control of resources, on the one hand. On the other hand, because of their central role in agriculture, women are great agents of social change. In fact, the FAO State of Food and Agriculture 2010-11 estimates that more than 100 million people could be lifted out of poverty if women had the same access to and control of resources as men[1]. Therefore, responses to climate change in agriculture must be gender-specific. Initiatives need to ensure that women are included in climate change mitigation and adaptation activities and strategies designed to enhance food security and livelihoods. To date, however, there has been little focus on how men and women mitigate risks and adapt to challenges brought about by climate change.

Although adaptation and mitigation have been developed as two distinct responses to climate change, the two are often applied in concert. In fact, agriculture strategies that help farmers adapt to climate change may simultaneously reduce greenhouse gas emissions or sequester carbon. Strategies that achieve both aims are the essence of the concept of climate-smart agriculture[2].

[1] The state of food and agriculture - Women in agriculture Closing the gender gap for development (2011) Food and Agriculture Organization, Rome, Italy

[2] "Climate-Smart" Agriculture Policies - Practices and Financing for Food Security, Adaptation and Mitigation (2010) Food and Agriculture Organization, Rome, Italy

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KEY MESSAGES

- To meet the challenges of climate change and the increasing global demand for food, agriculture must become 'climate-smart'.
- Climate-smart agriculture actions must take gender issues into account.
- Little research has been undertaken to understand how men and women are adapting to a changing climate, mitigating emissions and maintaining food security.

GENDERED APPROACH TO CLIMATE-SMART AGRICULTURE ACTIONS

Much of the research into agricultural and farming systems has looked at soil, water and land management strategies and technologies that make up the portfolio of climate-smart agriculture options. Very little emphasis has been placed on understanding the different adaptive strategies men and women apply in order to secure their livelihoods in the face of climate change. If climate change research and development interventions are to be targeted to men and women, we need to understand both men and women's adaptation and mitigation strategies.

Understanding gender differences will allow policymakers, development practitioners and researchers to see how marginalised groups, such as impoverished men and women, could gain equitable access to and use information resources that would allow them to make better decisions on how to adapt to climate change. These resources would also allow them to consider specific mitigation approaches they might be able to pursue to ensure food security for their families.

DEVELOPING AND TESTING NEW APPROACHES

Several participatory research approaches have been used to address a wide range of issues faced by rural households. These approaches are exemplified in FAO's work on gender and climate change in Andhra Pradesh, India. Research findings from India identified the need to improve research tools to better address gender and climate change research gaps. This research inspired a collaborative effort between FAO and CCAFS on an initiative aimed at better understanding and applying gender issues in their programmes. This joint effort embodies FAO and CCAFS's shared vision of contributing to knowledge that informs new climate-smart agriculture actions.

A Critical Finding on Gender and Climate Change in Andhra Pradesh, India

Local institutions in Andhra Pradesh, India, advised farmers on cropping patterns and strategies for coping with climate change. In theory, both men and women had access to the information. In practice, however, access was not equal: 21 percent women compared to 47 percent of men reportedly had access. This shows that, in the Indian context, men were clearly more likely to receive guidance on coping with climate change. Women were often either unaware information was available or did not have access to it. As a result, they remained even further removed from the decision-making plans for responding to climate change.

The FAO-CCAFS initiative is aimed at identifying the tools most useful for gaining a better understanding current adaptation and mitigation strategies pursued by smallholders. It looks at what kinds of institutional arrangements and action research approaches can help ensure more equitable access to benefits of interventions aimed at enhancing resilience in the face of a changing climate. The FAO-CCAFS collaboration is developing training materials that address new approaches and issues, which have been identified in consultation with local CCAFS partners. The training materials cover three main research priorities:

- facilitating farmer exchange visits and other approaches for sharing adaptation strategies in 'climate analogue' areas - places where farmers today can learn about the climatic conditions they can expect to be dealing with in the future;
- assessing how to facilitate the use of daily and seasonal weather forecasts for farmers and how to make access to forecasts more equitable;
- understanding and catalysing gender-sensitive, climate-smart agricultural practices.

The field-tested training materials on 'Gender and Climate Change Issues in Agriculture and Food Security for Rural Development' are intended for researchers and agricultural development professionals who are working at field level to better understand how men and women respond to impacts of climate change. The material focuses on how men and women prepare for a changing climate and how they modify agricultural practices to reduce their contributions to climate change. The training materials will be available in early 2012.

PARTICIPATORY ACTION RESEARCH

Climate change is making it increasingly urgent for more widespread and significant changes in farming practices to increase productivity and, at the same time, use natural resources more efficiently and sustainably. Example of these practices include, shifts to new crops and varieties, water and soil conservation measures and planting trees on farms. To ensure that the most appropriate options for change are adopted, more research and development work is called for. Participatory action research is an approach that combines both research and development work. The idea behind this approach is that particular actions, or interventions, are tested and implemented simultaneously with local partners, researchers and development workers cooperating closely. The research takes place while the actions to address climate change are implemented. Participatory action research is not easy to undertake. The training materials developed by CCAFS and FAO incorporate lessons learned from innovative action research approaches and from development work in the field of gender and climate change. These materials will help to inform practitioners how gender can be mainstreamed into development activities and action research on climate change adaptation and mitigation.

GENDER-SENSITIVE PARTICIPATORY APPROACHES INFORMING CLIMATE-SMART AGRICULTURE ACTION RESEARCH

The following boxes explain the three main topics in the training materials directed specifically at priority research topics jointly identified by the CCAFS research team and its partners.

BOX 1
Climate analogues: Seeing your agricultural future, today

Climate analogues are an approach that can help people visualise what their climate and environment is likely to look like in the future. The idea of the analogue tool is to connect a particular location with places that have climates similar (analogous) to what scientists expect the climate will be like in that location at a given time in future due to climate change.

The tool can be used to help rural communities adapt to their changing climate by enabling farmers to better envision how their agricultural future might look like. For example, if farmers in a particular area rely heavily on maize production, and the climate analogue tool shows that this area will soon resemble a range of other locations where maize is not planted because there is not enough rainfall, farmers may want to start thinking about shifting from maize to other crops. This tool can contribute to facilitating farmer-to-farmer exchanges of knowledge. These exchanges could happen through a variety of means, including visits to analogue sites, the use of films or via cell phone communications. These opportunities need to be explored further. One key question is. 'How do we ensure that women and disadvantaged groups, for example those without education or cell phones, will benefit from this new knowledge?'

BOX 2
Ensuring equitable access to, and use of, seasonal weather forecasts

In theory, seasonal weather forecasts, such as the one found at: www.necjogha.org/news/2011-03-10/uganda-march-may-2011-seasonal-climate-forecast can help farmers make better-informed decisions about how to improve their productivity and lower their vulnerability. In practice, however, many factors may hinder the usefulness of these forecasts. Since different household members make different agricultural and natural resource management decisions, it is critical that information from these forecasts reaches and is understood by everyone in the household. The research approaches developed and tested by FAO-CCAFS are designed to respond to key research questions, such as, 'Who is receiving the forecasts?', 'What kind of information are they getting?', 'Are they able to use it?' and 'If so, how?'

BOX 3
Understanding and catalysing gender-sensitive, climate-smart agriculture initiatives

Understanding gender differences in access to climate-smart agricultural interventions and opportunities is essential to responding effectively to climate change. The FAO-CCAFS initiative is exploring how institutional arrangements can be strengthened to improve access to the benefits of climate change-related interventions and catalysing gender-sensitive, climate-smart agriculture initiatives. The approach taken by FAO-CCAFS to gender-sensitive research is intended to support more widespread uptake of climate-smart agricultural practices, by both women and men, and enhance the likelihood that the benefits of initiatives, projects and programs are effective and equitable.

Outputs from research in this area include a better understanding of the kinds of climate-smart agriculture practices that have been taken up by men and women, and how and why these changes have come about. This work involves carrying out analyses of the challenges and opportunities linked to particular changes in farming practices. It also provides information on the kinds of institutions (broadly defined as the 'rules of the game'), strategies and approaches that can support shifts to climate-smart agriculture practices by both men and women.

FOR FURTHER INFORMATION

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