

The Policy Landscape for Climate Change Adaptation

A Cross-Country Comparison of Stakeholder Networks

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CLIMATE CHANGE IS AMONG THE MOST SIGNIFICANT CHALLENGES FACING AGRICULTURE IN THE 21ST century, and the rural poor in developing countries are among the most vulnerable to its adverse impacts. An increasing body of research is focusing on the question of how poor agricultural households will both perceive and be affected by climate change. In view of its predicted effects, the need to identify effective adaptation strategies is urgent. Against this background, the International Food Policy Research Institute (IFPRI) and partner organizations in the four study countries—Bangladesh, Ethiopia, Kenya, and Mali—embarked on research to support policymakers and development agencies in strengthening the capacity of male and female smallholder farmers, livestock keepers, and fishermen and women to manage climate-related risks. This policy note summarizes research designed to identify key actors engaging in climate change adaptation in the four study countries in order to disseminate research results more effectively in those countries.

CONTEXT OF THE STUDY

Agricultural technologies and sustainable natural resource management practices—such as the selection of appropriate varieties and soil and water conservation practices—help reduce climate change–induced risks to agriculture. Many organizations working in these fields use group-based approaches. Examples include agricultural extension groups, water user associations, groups practicing community-based natural resource management, microcredit groups, and groups associated with weather-based insurance schemes. Research has shown that group-based approaches can be particularly effective in assisting poor rural households to build assets; however, such approaches may also be vulnerable to elite capture, resulting in the exclusion of both poor households and female household members (for more information, see the companion policy note by Behrman, Bryan, and Goh).

As a first step, the research focused on identifying the key actors in the climate change arena in the four study countries through stakeholder analyses to determine potential partners in the research process, which organizations could make use of the research findings and implications for communica-

tions and outreach. A participatory mapping tool, Net-Map, was used to facilitate this process. Net-Map is a participatory interview technique that helps people understand, visualize, discuss, and improve situations in which many different actors influence outcomes. By creating maps, individuals and groups can clarify their own view of a situation, foster discussion, and develop a strategic approach to their networking activities. This process can also help outsiders understand and monitor complex multistakeholder situations, and allow stakeholders to examine both formal and informal interactions within the network.

As part of this process, key actors were asked the following four questions: (1) What actors are involved in climate change adaptation? (2) Who is giving advice to whom among these actors? (3) How much influence does each actor have over improving the ability of farmers to adapt to climate impacts? (4) What are the priorities and core activities of each of these actors in terms of climate change adaptation? Answers were arrived at by group consensus. The results included visual depictions of the stakeholder network for climate change adaptation (Figure 1), notes from in-depth discussions during the process, analyses of network characteristics, and implications for communication and outreach strategies. Further

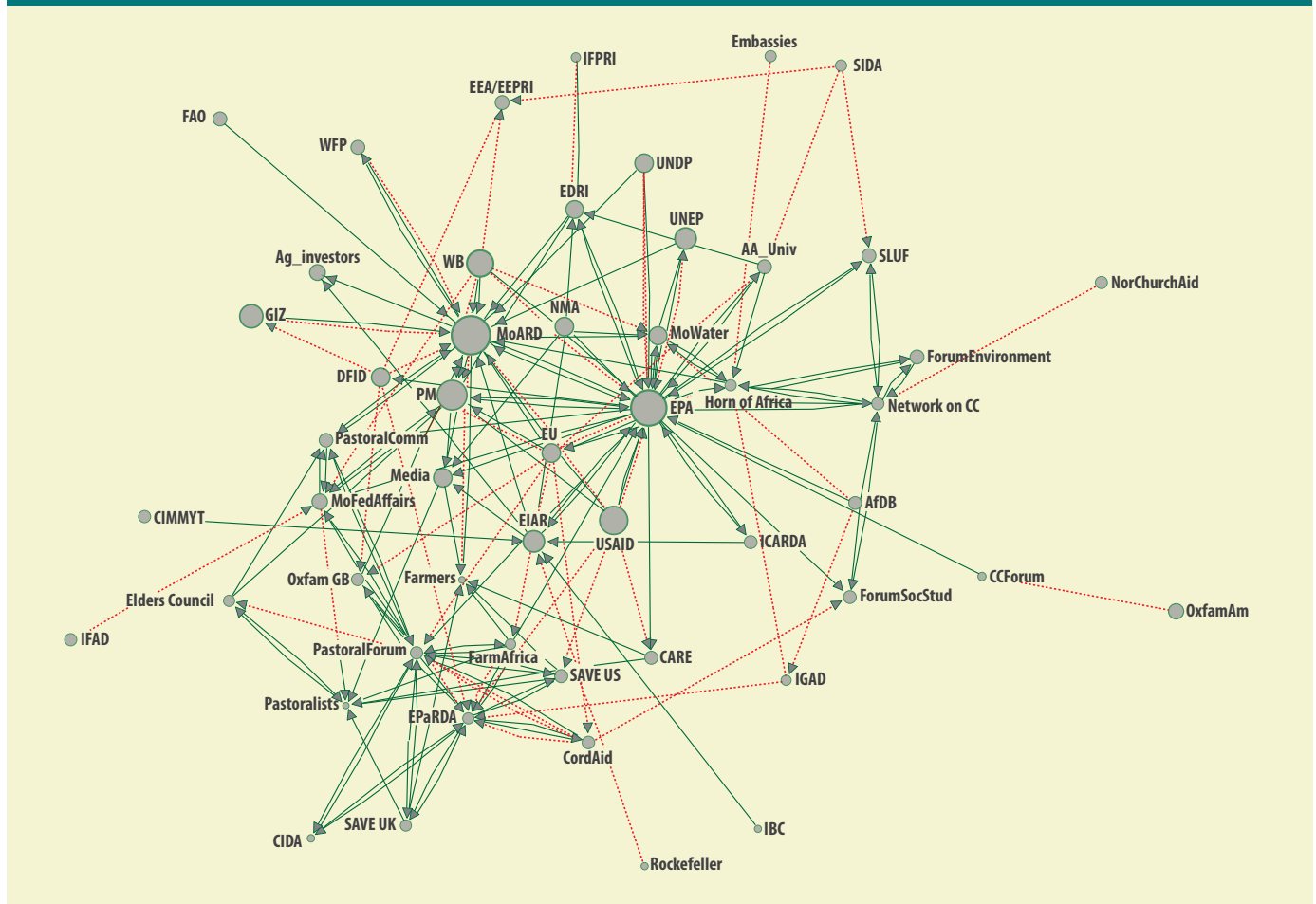
details are outlined in Aberman et al. 2014 (see For Further Reading).

NETWORK CHARACTERISTICS

While comparing results across countries has its limitations—primarily because the analysis is based on participatory interviews that elicited the differing contextual perceptions and ideas of the participants in each country—it does yield some

interesting contrasts. Both Bangladesh and Ethiopia have similarly centralized networks wherein key government agencies constitute the network's hub. The high influence and prominent role of the key government agencies in Kenya implies a similar network structure. In contrast, the network in Mali has three distinct hubs or clusters of actors: government, research, and civil society. The perceived distribution of power across the countries also varies. In Bangladesh, Ethiopia, and Kenya, the high-level government actors are perceived as the

FIGURE 1 Stakeholder network for climate change adaption, Ethiopia



Source: Devised by authors using Net-Map data.

Notes: AA_Univ = Addis Ababa University; AfDB = African Development Bank; Ag_investors = agricultural investors; CCF = Climate Change Forum; CIDA = Canadian International Development Agency; CIMMYT = International Maize and Wheat Improvement Center; CordAid = Catholic Organization for Relief and Development; DFID = UK Department for International Development; EPaRDA = Enhancing Pastoralist Research and Development Alternatives; EDRI = Ethiopian Development Research Institute; EEA/EEPRI = Ethiopian Economic Association/Ethiopian Economic Policy Research Institute; EPA = Environmental Protection Authority; EIAR = Ethiopian Institute of Agricultural Research; Elders_council = Regional Elders Council; FAO = Food and Agricultural Organization of the United Nations; ForumEnvironment = Forum for Environment; ForumSocStud = Forum for Social Studies; GIZ = Gesellschaft für Internationale Zusammenarbeit; Horn of Africa = Horn of Africa Regional Environment Centre and Network; IBC = Institute for Biodiversity Conservation; ICARDA = International Center for Agricultural Research in the Dry Areas; IFAD = International Fund for Agricultural Development; IFPRI = International Food Policy Research Institute; IGAD = Intergovernmental Authority on Development; MoARD = Ministry of Agriculture and Rural Development; MoFedAffairs = Ministry of Federal Affairs; MoWater = Ministry of Water and Energy; Network on CC = Civil Society Network on Climate Change; NMA = National Meteorological Agency; NorChurchAid = Norwegian Church Aid; OxfamAm = Oxfam America; Oxfam GB = Oxfam Great Britain; PastoralForum = Pastoral Forum Ethiopia; PastoralComm = Pastoral Standing Committee in Parliament; PM = prime minister; Rockefeller = Rockefeller Foundation; SAVE US = Save the Children US; SAVE UK = Save the Children UK; SIDA = Swedish International Development Cooperation Agency; SLUF = Sustainable Land Use Forum; UNDP = United Nations Development Programme; UNEP = United Nations Environment Programme; USAID = United States Agency for International Development; WB = World Bank; WFP = World Food Programme. Solid lines indicate advice links; dotted lines indicate funding links. Actors are sized according to influence scores.

most influential (the Ministry of Food and Disaster Management in Bangladesh, the prime minister in Ethiopia, and the relevant ministries in Kenya). In Mali, however, the highest influence is with the lower-level National Directorate du Agriculture. Bangladesh and Mali both have a single, powerful, multilateral organization playing a key role in the network. In Bangladesh this is the US Agency for International Development, and in Mali it is the Food and Agriculture Organization of the United Nations. In Ethiopia and Kenya, outside entities are seen as being less influential, presumably due to stronger, central government agencies.

All four study countries have a variety of civil society and nongovernmental organizations (NGOs) engaging in climate change adaptation. Civil society organizations are also active in linking target groups with NGOs and even with decision-makers. Nevertheless, there were calls for more of this connectivity across all the countries, indicating the current level of engagement with target groups is insufficient to address complex, interlinked climate change–adaptation issues. There were also calls for better coordination among the many types of actors implementing programs on climate change adaptation so as to more efficiently and effectively address the challenges.

IMPLICATIONS FOR OUTREACH

Three of the four networks appeared to be highly centralized. A high degree of centralization indicates that control over network flows are concentrated in just a few actors, implying that the core or central actors in each network are likely the decisionmakers and gatekeepers of information and hence should be key partners in any outreach strategy. In Mali, the presence of a few prominent clusters indicates that, rather than reaching out to a single small group of actors, the strategy there should be multi-pronged. This may require different framing of the adaptation issue depending on the cluster. In addition, working to improve the connectivity among the clusters could feasibly shift the shape of the entire network to promote better flows of information, innovation, and a more cohesive and vibrant community for climate change adaptation. Likewise, in Bangladesh, Ethiopia and Kenya, smaller, less-influential clusters were observed, providing opportunities for quick dissemination of information within the clusters. Similar to Mali, if these small clusters can be supported to grow, it could add to the vibrancy and cohesiveness of the adaptation community.

Private-sector actors were not prominent in the discussions, except in Bangladesh and Kenya. In Kenya, private-sector actors were perceived as providing helpful services to support adaptation, whereas in Bangladesh they were seen to



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be acting in opposition to the needs and goals of smallholder farmers and fishermen and women. Either way, dissemination of findings in an appropriate format to these audiences could expand private-sector awareness of adaptation issues and improve outcomes for both the private sector and smallholders. *Multilateral organizations* appeared to play a more influential role in the policy landscapes of Bangladesh and Mali than in those of Ethiopia or Kenya. This should be considered when determining how much to emphasize the public role of these actors in dissemination events or other public consultations. While in some contexts the presence and support of these organizations could help leverage government action, in other contexts a different strategy may be advisable. *Research organizations* in each of the four networks were involved in some clusters in the network. In Bangladesh and Mali these were more dominant clusters. Not only can the particular research organizations specified be targeted for partnerships or for dissemination of results, the fact that they are part of clusters indicates that information will likely spread quickly through their clusters.

In making use of these networks to inform future research and outreach on climate change adaptation in these four countries, it will be essential to take into account both the network structure and the characteristics of the various actors. Actors with the highest degree of centrality have a high degree of control over the network's information flows. While the most central actors are often the most powerful, they also tend to be the least accessible. Actors whose location in the network creates the shortest path between any other two actors also tend to have significant control of information flows and can often act as a liaison or intermediary. Finally, the actors that would most quickly be able to reach everyone else in the network are key to the spread of information.

FOR FURTHER READING

Aberman, N.-L., R. Birner, E. Haglund, M. Ngigi, S. Ali, B. Okoba, D. Koné, and T. Alemu. 2014. *Understanding the Policy Landscape for Climate Change Adaptation: A Cross-Country Comparison Using the Net-Map Method*. IFPRI Discussion Paper. Washington, DC: International Food Policy Research Institute, forthcoming.

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