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RESEARCH BRIEF:

Assessing Climate Information Services in Wajir County, Kenya

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Access to robust, user-tailored climate information services (CIS)—systems for generating, translating and communicating climate data on a wide range of variables, such as temperature or rainfall—enables stakeholders to make informed decisions regarding their livelihoods and well-being. However, in northern Kenya and Wajir County by extension, access to targeted climate information has not had the intended impact of building resilience against the impacts of climate change and variability among vulnerable communities. This is especially true for pastoralists, for whom conventional CIS falls especially short. Cattle herders typically make decisions around production—and particularly movement—based on a number of factors (e.g., security, disease, animal health services, pasture), and services that only provide local weather information are orten unuseful. In response to larger concerns about CIS provision, Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED), lead by Mercy Corps in Kenya, commissioned a study—using desk reviews and field surveys of key actors engaged in CIS provision in Kenya, with a special focus on Wajir—to understand the scope of climate information research and communication with pastoralist communities. This brief summarizes the three main areas of this research:

1. **Surveying and Summarizing Existing Climate Information Research:** What are the major findings of climate information research (at regional, national and subnational levels), especially those relating to pastoralist communities?

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2. Assessing the Scope of Users' Information Needs and Usage: What type(s) of climate information do users in Wajir need, currently have access to, and what are the gaps in between? Who (at what levels and scales and in what sectors) is receiving climate information, and how is it informing decision-making?
3. Determining the Existence and Effectiveness of Information Dissemination Structures: What programs are providing relevant climate and weather information in Kenya, how effective are they, and what is their potential for expansion? What other dissemination structures—not currently used for climate information—can the program tap to provide weather and climate information? Which actors are managing these structures and which aspects are scalable?

Surveying and Summarizing Existing Research on Climate Information

Seasonal climate information is commonly supply driven at the national level and does not reflect an understanding of user needs. Major limitations include: not being delivered in time for farmers and pastoralists to make vital decisions, scale being too broad for local relevance, and information being poorly tailored to users' needs (e.g., ignoring local languages, cultural norms and practices, or constraints on users' ability to use or access the information). For example, the Kenya Meteorological Department's (KMD) forecasts are available to farmers, but they lack the specificity, context and interpretation necessary to ensure they are useful for agricultural planning and decision-making. Factors contributing to major gaps in CIS range from limited integration of climate information with indigenous technical knowledge to inadequate data collection equipment and a lack of county specific climate information. Communication channels for nomadic pastoralists are especially weak.

The culture and social fabric of a community greatly influences its perceptions of climate and weather information, and the role of indigenous knowledge is important at the community level as most people respect these institutions. For this reason, an integrated early warning system (EWS) capturing pastoralists' perceptions and practices is more desirable and credible than strict scientific information. Information dissemination should include feedback mechanisms, allowing scientific information to reflect livelihood, social network and regional needs. However, circulation of climate information is not straightforward, particularly in Kenya where government extension services have been reduced and privatized due to liberalization mandates. The majority of smallholder farmers, the group most vulnerable to extreme climate events, rarely receives and uses climate information. In part, this is due to the lack of institutional capacity in terms of finance, human resources and infrastructure that would typically facilitate timely delivery of information for use in decision-making and planning. Insufficient observation stations and requisite IT infrastructure are also barriers.

Other Considerations:
- Institutional Arrangements and Governance: Weather forecasting does not necessarily translate into action by policy makers. Providing weather forecasts to planners and policy makers alone does not solve the problems unless the prediction is effectively woven into a policy framework. The review found that political influences, unequal power distribution and ethnicity can play a role in determining access to climate information. Local leaders had the power to select participants to attend meetings where these forecasts would be disseminated and discussed. There is need to develop region-specific expertise and institutional frameworks to facilitate information dissemination and sharing.
- Gender Equity: While, as of recently, Kenyans have a deeper understanding of climate change consequences and local solutions, as well as increased access to climate information through new technologies, women's lower literacy levels, restricted access to this technology (e.g., mobile phones, radios), and higher workloads limit their ability to make use of these new sources of information. While studies show gender roles are shifting and women are increasingly contributing to household welfare, their control over resources and decision-making power remain limited. Given these restrictions, it is critical to assess which communication networks are available locally, and which are most effectively increasing women's access.

Assessing the Scope of Users' Information Needs and Usage

While a variety of actors have been disseminating CI with the goal of building adaptive capacity and resilience against climate variability in Wajir, their activities have not been as successful in changing behavior as intended. Interviews with 12 groups, ranging from government officials to radio station staff to a local insurance company, provided the basis for an analysis of the types of decisions informed by climate information, user needs, and existing dissemination structures in Wajir County. The interviews revealed that stakeholder groups (e.g., pastoralists, government agencies, development partners) use CI to inform a wide range of decision-making around activities or programs. For instance, the National Drought Management Authority (NDMA) uses CI to prepare and implement contingency response plans and distribute drought contingency funds when facing climate risks, while pastoralists use the information for tasks such as assessing whether to purchase livestock insurance. However, there is often a disconnect between receiving the information and taking adaptive action.

While information needs did vary among stakeholders' groups, three general needs emerged during the interviews:
> forecasting the start of the rains and end of the rainy season, including specific locations,
> forecasting expected rainfall over the season, and
> assessing the probability of extreme events or climatic risks (e.g., droughts and floods). Though most question this information, stakeholders implement the suggestion regardless as a precautionary measure in the face of climate risks and perceived economic and livelihood impacts. In addition to CI, community members and other stakeholders need information on non-climate related factors like insecurity, disease and pest out break, marketing information, water and fodder location, and county government development plans and priorities.

Interviews also revealed existing sources of information, from indigenous knowledge to government bulletins and development agency outlooks. For example, communities relying on indigenous forecasting interpret two consecutive seasons of insufficient rainfall as a precursor for drought. On the other hand, the NDMA bulletin relates CI to pasture availability (i.e., vegetation cover), water availability, crop and livestock performance, market performance and food security. Most of the organizations and programs providing CI use NDMA's bulletins. .

Determining the Existence and Effectiveness of Information Dissemination Structures

The scale of dissemination structures in Wajir varies significantly, ranging from county to sub-county to household level. Commonly cited structures include: public barazas, elders, chiefs, point people, intermediaries, and religious leaders. Religious leaders' involvement in disseminating CIS often serve to reassure communities that the messages are in compliance with religion, increasing their effectiveness. Community radio is the most commonly used structure for local broadcasts (e.g., NDMA) in Somali language, though this service covers only 60% of the county with no coverage in the northern region. Examples of other dissemination structures include committees (e.g., Resilience Adaptation Committees, Ward Adaptation Planning Committee) mostly based around natural resource management, E-extension (i.e., call-in services), information desks (with 1 permanent desk per sub-county and mobile desks within the county). Primary actors driving these networks include: the community; the County Steering Group; the Ministry of Agriculture, Livestock and Fisheries; KMD; development partners (i.e., DFID, ALDEF, ADA, Mercy Corps); research organizations; and other stakeholders (e.g., ILRI, KALRO).

Climate information is generated and used in a social context characterized by varied and sometimes conflicting interests, values and visions of the nature and causes of impacts. Given this context, the scalability of various dissemination structures will depend on several factors, including sustainability; legitimacy (i.e., community political buy-in and policy support); and

efficiency (i.e., technical, social, financial and capacity). Though some structures function independently, a multi-stakeholder approach is likely best. Two potentially scalable structures should be explored further: 1) the Ward Adaptation Committee, originally charged with articulating climate change adaptation and resilience issues at the ward level; and 2) community radio, an underfunded entity that reaches areas that extension services cannot, in familiar languages and at low costs.

Next Steps

To be effective, CIS should deliver user-centered information at precise times and communicated through appropriate mechanisms. This includes provision CIS that will enable decision-making across principle livelihood groups—including pastoralism. Hitting all of these marks requires two complimentary models: the first a "science pull" or top-down approach where information providers decide what information is needed, and second a "demand pull," or bottom-up approach where the communities shape of the production of information itself. Both are critical to effective design, implementation and adaptation of CIS programs over time.

Based on this research, and to advance the development of more effective CIS delivery in Wajir, Mercy Corps has joined the DFID-funded Adaptation Consortium (ADA), a multi-institutional coalition with the aim of preparing county governments to access global climate finance funds in support of climate resilient development. Together Mercy Corps and ADA are coordinating national and local stakeholders in the participatory development of a County Information Service Plan (CISP), a strategy for county-level development and delivery of CIS. It is intended to support KMD's efforts to decentralize aspects of CIS delivery to county governments, and will support decision making across the principal livelihood groups, as well as strategic and climate-sensitive county government plans. The team is developing CISP through an iterative engagement process with representatives of county government, the NDMA, local NGOs, development donors, community members, religious organizations, the University of Nairobi and representatives from the community radio station.

See the full consultancy report HERE.

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