Preparation for the future?
Understanding the influence of development interventions on adaptive capacity at local level in Uganda

This brief summarises research conducted by the Africa Climate Change Resilience Alliance (ACCRA) in three sites in Uganda in 2010-11.

Climate Change, Adaptation and Adaptive Capacity – what are they, and why do they matter in Uganda?

While Uganda has made significant gains with regards to economic growth and poverty reduction in recent years, development pressures still exist and act as significant barriers to progress. Uganda’s population growth rate is 3.4%, higher than average for sub-Saharan Africa, and the population is expected to double by 2025, compared to 2002. The backbone of the economy is rain-fed agriculture, with over 80% of the country’s labour force employed in this activity. The country now faces the challenge of responding to a rapidly changing climate, that greatly magnifies existing development pressures. Since most Ugandan communities have a low capacity to adapt to these changes, the challenge is compounded.

Despite official recognition of this challenge, and the efforts of the government and development actors to address it, there is continuing underinvestment in planning for climate change. This requires an approach that manages uncertainty, fosters adaptive capacity and results in a flexible system that is able to adjust in the light of changing environment and development pressures in the future.

Climate Change Adaptation requires both an ongoing change process, whereby the system – which includes communities and government - can make informed decisions in a changing climate. Learning and being able to adapt is, therefore, as important as any specific adaptation intervention.

Adaptive capacity refers to the potential of individuals, communities and societies to be actively involved in the processes of change, in order to minimise negative impacts and maximise any benefits from changes in the climate (Pettengell, 2010).
In order to frame its research activities, ACCRA developed the Local Adaptive Capacity (LAC) framework, building on existing work, such as DFID’s Sustainable Livelihoods Framework and the World Resources Institute’s National Adaptive Capacity Framework, so as to understand not just what a system has that enables it to adapt, but also to recognize what a system does to enable it to adapt. For more information on the LAC, see the ACCRA Local Adaptive Capacity Framework policy brief.

**ACCRA’s research**

ACCRA undertook extensive field research using qualitative, participatory techniques in three sites in Uganda from October 2010 to March 2011, as shown in the map below. ACCRA’s research sought to investigate whether existing programmes are already contributing to adaptive capacity or not; to identify where existing programmatic approaches fall short; and to inform future actions to build adaptive capacity.

**Summary of regional climate model (RCM) data for each of the three accra sites**

- **Gulu: (all variables are for 1970-2050)**
  - Increasing trend in average temperatures
  - Slight increasing trend in consecutive dry days
  - Slight decreasing trend in consecutive wet days
  - No significant change in total precipitation.

- **Kotido: (all variables are for 1967-2050)**
  - Significant increase in minimum temperatures
  - Increasing trend in warm nights
  - Decreasing trend in cool days
  - No significant changes in in consecutive wet days and consecutive dry days
  - Decreasing trend in total annual precipitation, and heavy precipitation days
  - Slight decrease in the number of very wet days.

- **Bundibugyo: (all variables are for 1972-2015)**
  - Significant increase in minimum temperatures
  - Decreasing trend in the number of cool days
  - Slight decrease in the number of consecutive dry days
  - No significant change in consecutive wet days, or total of very wet days, or heavy precipitation days.

Note that the period years for modelled scenarios at each site are different. Both past and future trends are model simulations and do not directly incorporate observed data at each of the sites.

How are development interventions supporting adaptive capacity, and what’s missing?

Though none of the development interventions assessed in the course of ACCRA’s research has a specific focus on climate change, numerous project outcomes have directly and indirectly influenced households’ capacities to deal with changing external environments. ACCRA’s research findings show that, with regard to the LAC characteristics, the largest impacts can be seen within the ‘asset base’ and ‘institutions and entitlements’.

**Supporting livelihood assets in the face of changing climate and development pressures.**

At the household level, the ability to adapt is closely associated with access to, and the availability of, livelihood assets and resources (Vincent, 2007). Focus groups and key informants point to numerous examples where development interventions have contributed to creating, strengthening and diversifying livelihood assets: For example, supporting animal traction for agricultural enhancement and training programmes (Gulu); establishing infrastructure for rainwater harvesting (Kotido); assisting in the set up of village saving schemes (Gulu); and providing cash-for-work projects (Kotido), land and soil management (Bundibugyo). However, few interventions, if any, demonstrated that future climate and development scenarios had effectively been taken into account, or that information relevant to future changing scenarios was communicated to beneficiaries.

Simulations were run using the PRECIS regional climate model. Information was received from the Department of Meteorology and sourced from the unpublished site reports. Importantly, though RCM data is helpful in establishing trends, it must be acknowledged that such climate models have large uncertainties related to predicting certain elements of the climate system, particularly at smaller scales. Therefore any outputs have to be interpreted with a clear understanding of what particular projections can tell us and the associated uncertainties involved.
Tackling restrictive institutions and enabling entitlements to marginalised groups.

In many contexts across Uganda, this was the area in which development partners displayed their most successful support. Local responses to climate variability and change are often mediated through traditional practices, social structures and institutions. A number of programmes have assisted under-represented groups to develop a collective voice to express their needs at community level. Examples include support in the creation and promotion of women’s groups, workers’ associations and youth groups (Kotido, Gulu and Bundibugyo). Equally important, development interventions play an important role in supporting marginalised groups to find alternative livelihoods and enhance their capacity to deal with hardship. In Kotido, a number of food-for-work and cash-for-work interventions have supported food provision and asset security. However, this support does not address the traditional/institutional restrictions that limit vulnerable and marginalised groups in times of hardship due to changing roles and responsibilities.

Focus group sessions suggest that, during times of hardship, women are required to take on greater responsibility in providing for household needs. Primary roles, such as collection of food, energy (typically firewood), water, and caring of family members, are each exacerbated. Discussions among female focus group respondents in Bundibugyo also point to increased domestic violence during times of climate stress.

The institutional restrictions facing women play a significant role in determining how they react and the extent to which they are permitted to respond to shock and stress, with direct implications for their adaptive capacity. While changes in livelihoods can be relatively quick, institutions typically remain rather rigid and take much longer to evolve.

Exploring gaps in development practice.

Some key issues received less attention than the other areas. Focusing on innovation. Innovation, experimentation and the ability to explore niche solutions so as to take advantage of new opportunities are all central to adaptation and adaptive capacity. ACCRA’s research found that both development partners and government need to consider how interventions can provide an enabling environment to support autonomous innovation and experimentation at a community level. Most interventions are top-down and leave communities with limited opportunities for innovation. A few successful innovations, are being replicated, scaled-up or shared at community level, such as the adoption of improved planting techniques (through terracing, agro-forestry, etc.) in Bundibugyo, or promotion of improved, or better suited, crop varieties across all three sites, but the sustainability of innovation remains poorly recognised in the evaluation of project objectives. Respondents pointed numerous barriers to innovation such as: a lack of relevant skills and knowledge; poor communication and awareness of successful innovations and practices; a lack of resources and capital to invest in scaling-up new practices; risk aversion; and a reluctance to deviate from traditional livelihood practices. Development partners and government need to appraise their contributions to enabling sustainable innovation in their evaluations of project objectives and successes.

Focusing on knowledge and information.

Providing relevant knowledge and information e.g. on weather and climate to appropriate stakeholders in an accessible and easily-interpretable format is crucial in allowing individuals and communities to make informed long-term decisions and responses about their futures. There are few examples of planned adaptation actions being undertaken by development actors and government in the light of available climate information across the three research sites. Informants suggest that part of this failure may be due to a lack of capacity – particularly in local government – to interpret complex and uncertain climatic information, to recognise the associated implications for local programmes and to identify the actions that need to be supported to promote adaption and adaptive capacity. Greater support is required to improve technical capacity, establish infrastructure, and strengthen awareness in local planning and decision-making bodies around the issues of climate change and adaptation policy and practice. Sub-national actors must be enabled to take greater responsibility for making informed responses based on local needs.

Focusing on flexible, forward-looking governance.

Good governance and the capacity of communities to make their own informed, long-term decisions are important components of adaptive capacity. So much of the development planning in the three districts is ‘reactionary’, with little evidence that future changes in climate and development pressures are being taken into account. For example, increasing numbers of community members are migrating to fertile ‘wet-belts’ in search of more abundant and reliable water resources, moving from pastoral livelihoods to agro-pastoral and agricultural practices (Kotiodo), other alternative sources of income emerging like charcoal burning and brick making in all ACCRA sites. Respondents spoke of significant issues of land management, the exploitation of natural resources and increased conflict as a result of encroachment on the wetlands. While ACCRA identified some actions that contain forward-looking elements, the majority is short-term and appear focused on addressing specific hazards, such as landslides and floods. NGO and government actors have not had a significant impact on improving formal governance processes. Some isolated examples of support for district planning – largely in the training of District Disaster Management Committees in all sites – limited implementation has taken place.

Rural savings and credit scheme in Gulu District – supported by CARE International in Uganda
Each district has numerous planning tools, such as the district development plan, the Disaster Contingency Plan and the District Disaster Management Plan which may require harmonization for effective coordination and implementation.

Development partners are in a strong position to access and provide the information and knowledge necessary to inform decision-making, and to supply the training and tools needed to develop the capacity to identify appropriate policy actions. This means addressing the requirement that power and decision-making processes must be accountable, transparent and responsive, and ensuring that the processes of formal governance reflect the concerns of all members of the community through participatory and equitable means.

**Recommendations**

**Government and development partners can do more to incorporate issues of climate variability and change into current and future planning and implementation.** Communities are already responding and taking actions to adapt to changes in climate and development pressures. However, the majority of actions taken to adapt are reactive and focus on the short term. Fewer adaptation actions can be considered as successful and sustainable in the longer term. Similarly, development partners and government largely base intervention support on current and immediate needs, with future changes in climate and development pressures over the short, medium and long-term not considered within programme design. However, issues of climate variability and change cannot be addressed in isolation and need to recognise wider development challenges, such as population growth, economic markets and natural resource management.

**Development interventions need to place greater emphasis on supporting the agency of community beneficiaries.** Adaptive capacity is, in large part, synonymous with an individual’s and/or a community’s ‘agency’, i.e., their ability to act independently and make their own choices. The interventions that have had the most pronounced effect on enhancing adaptive capacity are those that have supported the processes that enable individual agency and capacity development. Many of these process elements relate to support for the characteristics of innovation, knowledge and information; institutions and entitlements; and flexible, forward-looking governance.

**Development partners need to better understand the context and to address the root causes of the underlying social, political and institutional processes within which their interventions operate.** Findings from ACCRA’s research suggest that development interventions that seek to address restrictive institutions and cultural barriers are some of the most effective in supporting adaptive capacity and promoting individual agency, particularly for marginalised groups.

**Greater focus on coordination and building the capacity of local governance and decision-making bodies is needed.** Government and development partners can do more to incorporate issues of climate variability and change into both current and future planning and implementation. Efforts to coordinate community, district and national activities toward addressing climate change issues are largely lacking across Uganda. District-level actors are seldom aware of national policies and commitments, and actions are not coordinated to integrate National Adaptation Programme of Action (NAPA), National Disaster Preparedness and Management Policy (NDPMP) and National Development Plan (NDP) objectives within district-level planning. The top-down and conditional nature of funding from central government leaves district government with few options for addressing local needs outside centrally designated priorities.

**Development partners must, as a group, ensure that their support to communities helps to address and strengthen all the characteristics of adaptive capacity.** Better communication and coordination is needed between different actors across difference scales, from the national to the local. The LAC framework may be a useful starting point in understanding where the focus should be, and how development interventions can be tailored accordingly.

**Understanding of adaptive capacity, and the processes that contribute to it, is weak and requires further research.** The concept of adaptive capacity is complex, and the determinants, functions and indicators that reflect it at local level are not universally agreed. Findings from this report are meant to reflect ACCRA’s interpretation of adaptive capacity, as depicted through the LAC framework, and have to be considered in light of limitations in the scale, application and methodology used through the research process. More research is needed to validate the findings across a wider scale and to generate a more applicable interpretation of the characteristics of adaptive capacity, particularly for different contexts – such as the differences between rural and urban settings.

**References**