

Districts turn to climate data to reshape planning, protect livelihoods

Local governments are now beginning to plan for a future where past weather patterns can no longer be used to reliably predict the future.



Deforestation is a primary contributor to climate change. Climate change has often been treated as a specialised concern, handled primarily by environment or natural resources departments. PHOTOS/FILE

BY CAESAR ABANGIRAH

In districts across Uganda, climate change effects are becoming more frequent, more intense, and harder to manage, with direct consequences for rural households.

Floods wash away homes, crops and household assets in low-lying areas, landslides displace communities in mountainous regions, and prolonged dry spells disrupt planting seasons and reduce yields.

In some cases, districts experience both drought and heavy rainfall within the same season, leaving rural households struggling to sustain production, protect their assets, and maintain stable incomes.

Local governments are now beginning to plan for a future where past weather patterns can no longer be used to reliably predict the future.

In Mbarara, Mr. John Bagambe, the District Natural Resources Officer, describes climate change as a growing crisis that is not only poorly understood by many communities, but also insuffi-

ciently addressed within local planning systems.

"The people suffering most are the poor, the children, the elderly, people with disabilities," he says.

"As leaders, we have not been doing enough to reduce the impact on them." His observation captures a broader institutional gap.

While Uganda has developed national climate policies and frameworks, the translation of these into practical, local-level planning decisions has remained uneven. Districts, which sit closest to communities, have often lacked the tools and data required to anticipate risks and allocate resources effectively.

Efforts to introduce climate risk and vulnerability analysis into district planning are changing how local governments think about development. It is changing how priorities are set, how budgets are justified, and how different departments coordinate their work.

The Kasese story

In Kasese, the urgency of this change is evident in the scale and intensity of cli-



mate impacts. Ms. Oliver Masika, the District Environment Officer, describes a district that experiences multiple extremes within the same season.

Floods arrive suddenly, sometimes within hours, washing away crops and destroying homes.

In the mountainous areas, landslides threaten entire communities. At the same time, prolonged dry spells leave farmers struggling to sustain production.

"You can have drought, then heavy rains that come and destroy everything," she explains.

The effects ripple across rural livelihoods, undermining household incomes, food security, and economic stability at community level. Crop losses translate into reduced household income, food insecurity, and rising vulnerability.

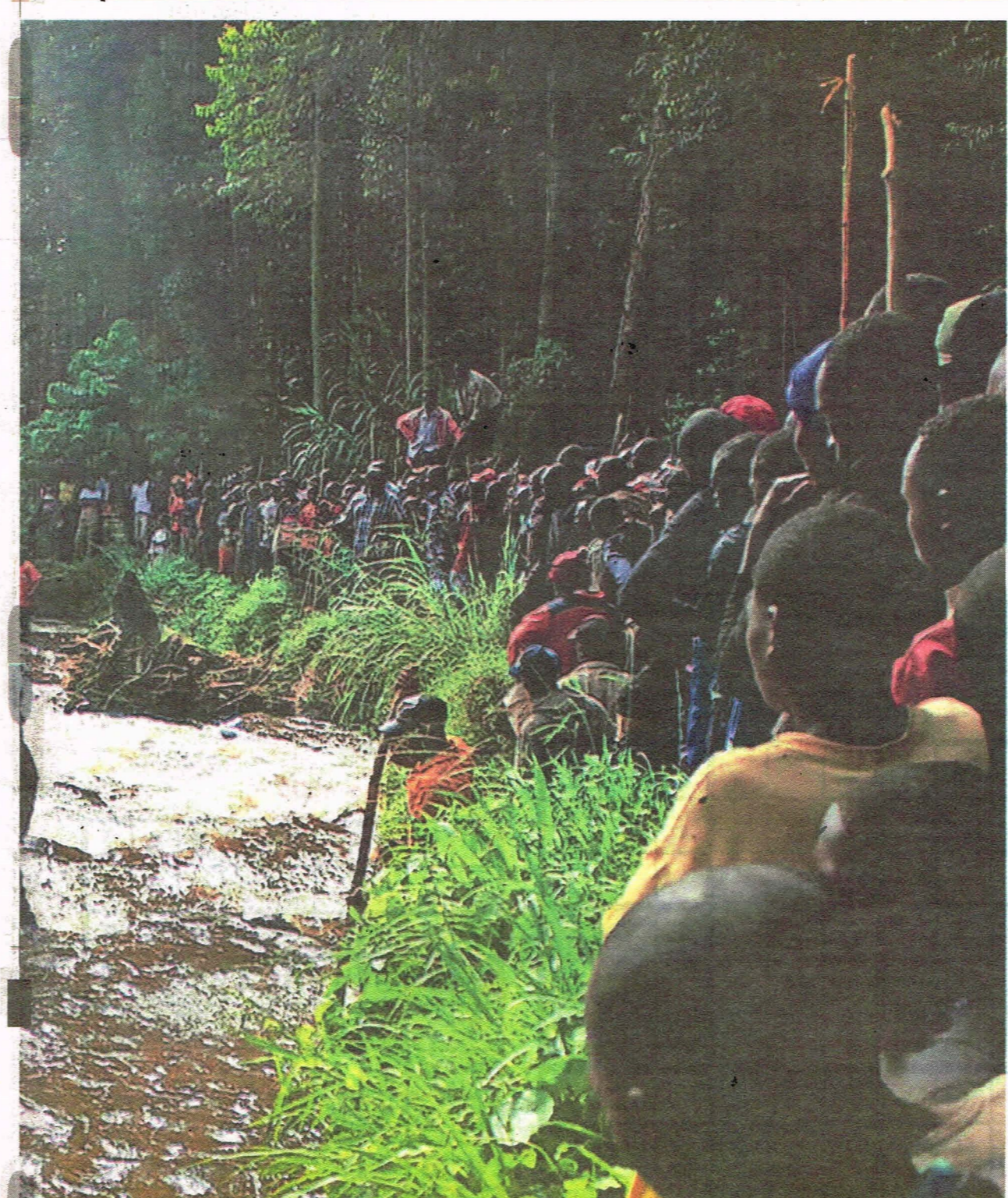
Livestock diseases and pest outbreaks have become more frequent. In some instances, wildlife moves into farmland in search of food and water, intensifying conflict with communities.

Despite these realities, climate change has often been treated as a specialised concern, handled primarily by environment or natural resources departments.

"When you mentioned climate

Above: River Nyamwaba in Kasese after bursting its bank. Often, floods arrive suddenly, sometimes within hours, washing away crops and destroying homes.

Right: Some of the district leaders during the training workshop on climate change.



change, other departments would say it is not their responsibility," Masika recalls.

This fragmented approach has limited the effectiveness of responses.

Agriculture, water, health, and infrastructure planning have frequently proceeded without fully accounting for climate risks, even though those risks cut across all sectors.

The introduction of climate risk and vulnerability analysis is beginning to change that dynamic.

AGRA has been working with district local governments and institutions to strengthen climate-informed planning. Through targeted training and technical support, AGRA has helped build the capacity of district officials to use climate risk and vulnerability data in developing plans and budgets.

Beyond Historical Data

Presenting at the training workshop, Mr. Fred Roland Muwanika, a climate change policy consultant, emphasised the need to move beyond historical data in decision-making.

"Historical data observations alone are not suitable to assess future climate-related risks," he noted, adding that planners must rely on forward-looking climate models and vulnerability analysis to guide adaptation

PROGRESS?

Even with the progress made, challenges remain. Access to data and technical capacity is not uniform across districts. Some local governments are better equipped than others to interpret and apply climate information. Funding constraints also limit the pace at which planned interventions can be implemented. There is also a need to deepen community engagement. While data provides a critical foundation, local knowledge remains essential in understanding how climate impacts are experienced on the ground and what responses are most appropriate.

strategies.

This approach, he explained, will enable districts to better anticipate risks, prioritise interventions, and strengthen resilience in sectors such as agriculture and water resources.

At its core, the approach provides districts with data that identifies where risks are highest, which populations are most exposed, and what types of interventions are likely to have the greatest impact. For district officials, the availability of this information is a clear departure from previous practice.

"We now have figures and maps to aid in planning," Bagambe says. "We can show what is likely to happen in a particular area and advise communities accordingly."

With clearer evidence, district officials are better positioned to engage both communities and decision-makers. Risk-prone areas can be identified in advance, allowing for targeted interventions such as promoting drought-resistant crops, improving water management systems, or strengthening early warning communication.

The presence of data also strengthens the case for funding.

"In the past, it was difficult to convince decision-makers to allocate resources," Bagambe explains. "Now we have information to support our plans."

In Kasese, the changes extend beyond data to institutional arrangements. A district climate change committee has been established to coordinate planning, advise on mitigation and adaptation strategies, and guide responses to emerging hazards.

Climate change is increasingly being recognised as a cross-cutting issue that requires input from multiple departments rather than a single technical unit.

"Every department must now consider climate change in its plans and budgets," Masika says.

Districts have historically focused more on mitigation efforts such as tree planting, while adaptation, which focuses on how communities cope with climate impacts, has received less attention.

Adaptation Measures

"We have been planting trees, but we had not fully integrated adaptation into our planning and budgeting," Masika acknowledges.

Climate vulnerability mapping is expected to balance both.

Adaptation measures are expected to be incorporated into development plans, with a focus on strengthening resilience in agriculture, water access, and

ecosystem management.

Inclusion

Another important shift relates to inclusion.

Training sessions highlighted the disproportionate impact of climate change on vulnerable groups. Women, children, the elderly, and people with disabilities are often the most affected, yet their needs have not always been reflected in planning processes.

"We are now learning to include those groups in our plans and budgets," Bagambe says.

It represents a move towards more equitable planning, where interventions are designed not only to address climate risks but also to ensure that the most vulnerable populations are supported.

Dr. Florence Lwiza, the Gender and Social Inclusion Consultant underscored the need to deliberately prioritise vulnerable groups.

"Climate change does not affect everyone equally," she noted.

"Women, children, the elderly and people with disabilities face the greatest risks, yet they are often left out of planning and budgeting processes. If we are to build resilience, these groups must be at the centre of climate action, not an afterthought."

Uganda's agricultural sector, which underpins livelihoods for millions, is highly sensitive to climate variability. Disruptions in production affect not only food security but also the country's ability to compete in regional markets for key crops such as maize, beans, and rice.

Strengthening resilience at the local level is therefore closely linked to national development objectives.

District-level planning, when informed by climate risk data, has the potential to stabilise production systems, reduce losses, and support more predictable supply chains. This, in turn, contributes to broader efforts to enhance food system resilience and trade competitiveness.

Even with the progress made, challenges remain. Access to data and technical capacity is not uniform across districts. Some local governments are better equipped than others to interpret and apply climate information. Funding constraints also limit the pace at which planned interventions can be implemented.

There is also a need to deepen community engagement. While data provides a critical foundation, local knowledge remains essential in understanding how climate impacts are experienced on the ground and what responses are most appropriate.

For district officials, the task ahead is to translate new knowledge into sustained action.

"We now have the information and the direction," Bagambe says. "What is important is to put it into practice and ensure that it benefits the communities that need it most."

The change emerging in districts such as Mbarara and Kasese reflects a broader transformation in how development planning will be approached. Climate change will no longer be treated as a separate issue, but will be recognised as a central factor shaping decisions across sectors. With better data and stronger coordination, districts will move towards more resilient systems, where planning with foresight will replace reactive responses to recurring crises.