Statement/intervention to:

UNFCCC in-session workshop on climate modelling, scenarios and downscaling under the Nairobi work programme on impacts, vulnerability and adaptation to climate change

10:00 to 13:00 - 07/06/2008

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'To identify practical opportunities to improve access to and use of outputs of different models, including assessment of their applicability and training opportunities'

I speak in the context of information, training and application of tools, data and output in developing countries and particularly from the perspective of sub-Saharan Africa.

1. Part of the challenge for Africa is lack of localisation in reporting. There exists a scarcity of weather stations reporting to the WMO and even where stations do exist the quality of data is often unreliable tho it is often used in the production of climate modelling. This can be due to lack of resources, crime and conflict. Thus experiential evidence of cc is important but also scarce. The problem particularly applies to historical data which is regularly incomplete. Thus a region such as the Upper Zambezi basin north of the Victoria Falls, a region the size of Germany and France combined, and with several climatological zones, enjoys one recognised recording station.
Thus an early requirement in terms of capacity building is support for the supply, installation and, most importantly perhaps, training in use, maintenance and security of data recording facilities.

2. Long-term training in the use of downscaled data, climate modelling tools and capacity building in early warning systems are vital requirements for Africa. Current knowledge is limited and restricted to those regions with higher economic development. There are two issues for Africa in this respect. The first is that, in Africa, much of the climate modelling information now in use is produced either outside of Africa or in one regional pole where funding is dedicated in well-equipped and well-staffed specialist climate centres. In much of Africa, local expertise tends to be overtaken by tool technology and outputs from elsewhere. African climatologists are often enticed to these external institutions where their talents are employed in host regions. Thus

there is a technology and informational gap or divide that is geographically uneven in nature and concomitantly presents a constraint and an opportunity and need for transfer.

3. Opportunities exist for investment in capacity building for local meteorologists and climatologists. ENDA is currently partnering in the production of regionally-based training courses located at academic departments of African universities where expertise exists but where resources are scarce. The objective here would be to create networks of regional specialists who can create ownership and a degree of regional homogeneity to climate knowledge. We think here of regional centres of training, not only where facilities are known to exist such as in South Africa, but perhaps linguistically in francophone, anglophone and lusophone Africa as well as in north Africa. Language is an issue when teaching and learning in climate science. We envisage fellowship or even MSc programmes that can be hosted at African universities with expertise being recruited from modelling agencies around the world.

4. The second issue is on outputs, usability and complexity and, in this respect, it is probably useful for us to consider what level of complexity is most appropriate to the targeted audience of users to achieve the maximum potential for understanding of local climate processes and planning for adaptation. Understanding concepts such as downscaled data is low and often not trusted. It is one thing to get access to complex data and another to understand and deploy it effectively. Therefore, the complexity of tools and outputs should reflect user competence and deployability. In Africa, we sometimes find that tools are not used because they are perceived by users not to be practicable due to their level of complexity. The user group here includes those working in climate and meteorology but also adaptation project managers and specialists. If these groups are to understand how to use any of the various modelling tools available and their outputs, they must also understand the meaning, context and reliability of the information they are dealing with.

5. Thus, training opportunities arise using relatively unsophisticated tools that still require considerable knowledgeability in climate processes and issues. These would be largely directed to adaptation and co-benefits mitigation and adaptation specialists who interact with policy makers to derive outputs that relate more directly to their informational needs which are likely to be multidisciplinary in nature. Workshops and training courses that specialise in this type of work can be located in regional centres that specialise in multidisciplinary climate and sustainable development issues. Such institutions do exist in Africa, notably in Kenya, Niger, Senegal and South Africa. Work could be infused by an expert group tasked with developing modular courses to be transferred to African specialist teams through training of trainer workshops

6. Another possibility that has been suggested in recent discussion groups is the establishment of a collaborative platform to organise, share and disseminate feedback on available data, methods and tools. One aspect of this could be an interactive platform to share user feedback with the possible longer term goal of a user evaluation process. Such an interactive database could be housed within the UNFCCC website and could facilitate the process of tool selection for the adaptation community.

7. WeAdapt and the Climate Change Explorer are possible examples of such a collaborative platform. CCE is a software tool aimed at non-climate scientists that allows users to access and explore downscaled station level climate projections; while the weAdapt platform uses multiple approaches to decision-making to identify, screen, evaluate user-defined adaptation options for specific contexts.

So, in summary, the issue of access and applicability is very much about expanding the sources of data. And, it is about understanding what models do, what are their limitations and their ability to answer specific questions. For regions such as SSA, modelling work, tools (such as PRECIS) and outputs should not carry with them the burden of a charging system.

ENDA has a plan on the table right now with the UNITAR C3D partnership to create an indigenous knowledge bank on climate including experiential evidence of cc and v, coping strategies and a knowledge exchange network for local communities, CSOs/CBOs, local livelihood groups, local decision makers and adaptation specialists for Africa which we intend to share with other regions such as carib, Indian ocean and pacific regions. Our logic is that climate science is then called on to support and explain the real life experience of affected communities.