## **Commission on Sustainable Development**

## Thematic Discussion on Drought, Wednesday morning, 7 May 2008

## Contribution on Behalf of the Scientific and Technological Communities

## James Hansen, International Research Institute for Climate and Society

Prediction and early detection of drought and its impacts can support early interventions that protect lives, livelihoods and the natural resource base; but only if intervention is well targeted, and if reactive institutional procedures and policies do not constrain early response. Drought and food security early warning systems – already well developed across sub-Saharan Africa – should be strengthened. There are several technical enhancements that can combine multiple sources of information, improve lead time and accuracy of predictions of impacts, and make the tradeoff between lead time and accuracy more transparent. I'd like to highlight three additional areas of investment that contribute toward achieving the full benefit from climate-related early warning systems.

The first area is institutional. National meteorological and hydrological services need to be oriented and resourced as partners and service providers for development. This year marks the tenth anniversary of regional climate outlook forums (COFs) in Southern, Eastern and West Africa. There is a need to build on, but go beyond, the considerable successes of regional climate outlook forums; drawing, for example, on the experience of the MALOF in Southern Africa, which is designed and led by development stakeholders and underpinned by the climate community. Enhanced coordination of response between farmers and their advisers, rural market institutions, food crisis response organizations and natural resource managers is vital for moving rural communities beyond the cycle of poverty, vulnerability and dependency – sometimes referred to as the "relief trap" – and toward rural prosperity.

Second, substantial investment is needed in climate data and observing systems, to: (a) reverse decline and enhance spatial coverage of observation infrastructure; (b) to rescue and digitize paper records; and (c) to supplement and merge sparse observations with historic (~30 years now possible) and near-real-time remote sensing data. National policy should treat climate data as a public good and a resource for sustainable development.

Finally, there is an increasingly recognized, yet largely unmet need to extend early warning information to the vulnerable rural communities who are the ultimate stewards of fragile lands, managers of their own livelihoods and intended beneficiaries of intervention. Within an enabling environment, climate information services can allow farmers to more effectively protect their families and farms against the long-term consequences of adverse extremes; and also to adopt improved technology, intensify production, replenish soil nutrients and invest in more profitable enterprises in seasons when rainfall conditions are favorable. This will require investing in effective delivery mechanisms. Agricultural extension services (and their non-governmental and private sector counterparts) should be revitalized, resourced, trained, and engaged to provide climate and early warning information, and to foster and guide effective management responses. Investment in rural communication infrastructure (radio, ICT) is also needed both as an alternative vehicle to reach rural communities and to streamline information transfer to communication intermediaries (e.g., district agricultural offices).