

## Vulnerability and adaptation in Africa: a conceptual approach

Dakar, Sénégal, 2007

### Context

ENDA is one of the few truly international African NGOs whose constituency comprises African populations across urban and rural Africa. ENDA focuses on a 'development first' agenda, building capacity and resilience among African communities, institutions and decision makers from its base in Dakar, Sénégal.

Climate change and variability represent serious threats in much of Africa due to the immediacy of their impacts on local communities whose socio-economic and cultural well-being is premised primarily on the natural environment. Nevertheless, climate change is not a new phenomenon and African communities have, over time and space, developed coping strategies, successfully managing livelihood resources using indigenous knowledge and skills.

However, the increase in climate variability, added to the demands of rapidly growing populations and unsustainable socio-economic practices have now started to outstrip local coping capacity. This has intensified pressure on the quality of lives and livelihoods in Africa, putting further pressure on human and ecological security. Adaptation to the crisis, meanwhile, is constrained by shortages of information, technology, skills and economic resources. These constraints intensify seemingly inerasable inequalities that have become long entrenched.

### Background to vulnerability and adaptation



Figure 1. Vulnerability in unexpected shapes – heritage festival in Upper Zambezi floodplain

Germane here is that human and environmental vulnerability, which exists at several crosscutting human and environmental levels (see Figure 1) is caused more by socio-economic and political dynamics than by biophysical processes (see Figure 2). Increasing climate change has become an aggravating factor,

adding to risk and constraining efforts to alleviate hardship and human insecurity. This is why vulnerability, sensitivity of local systems and capacity to adapt to climate change and variability must be considered when developing sustainable development strategies and national plans of action.

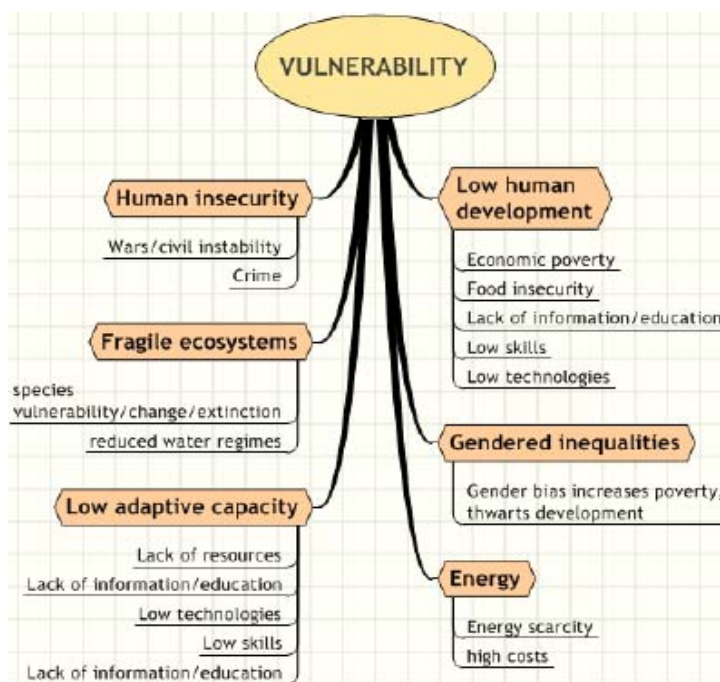


Figure 2. Aspects of vulnerability

Adaptation is a social response to vulnerability. It rarely involves new processes; adaptation is not about 're-inventing the wheel.' What is new and innovative is the idea of climate proofing existing sustainable development strategies. It is about the creation of choices and alternatives for lives and livelihoods (see Figure 3). Adaptation to climate change remains meaningless unless it is integrated or 'mainstreamed' into overall development strategies, addressing social and ecological pressures combining short and long-term goals, taking into account other aggravating factors such as energy poverty.



Figure3. Adaptive strategy, new rice growing project Western Zambia

For African organisations such as ENDA, whose main focus is on tackling underdevelopment, such strategies must be conditioned by two factors. First is the positioning of priority ownership of the adaptation process among affected communities and their representative leaders. Second is the recognition and validation of indigenous knowledge networks as a basis from which to work when introducing new methodologies and techniques.

As Figure 4 demonstrates, adaptation is multifaceted and encompasses numerous crosscutting themes that feed back as inputs into the socio-economic system

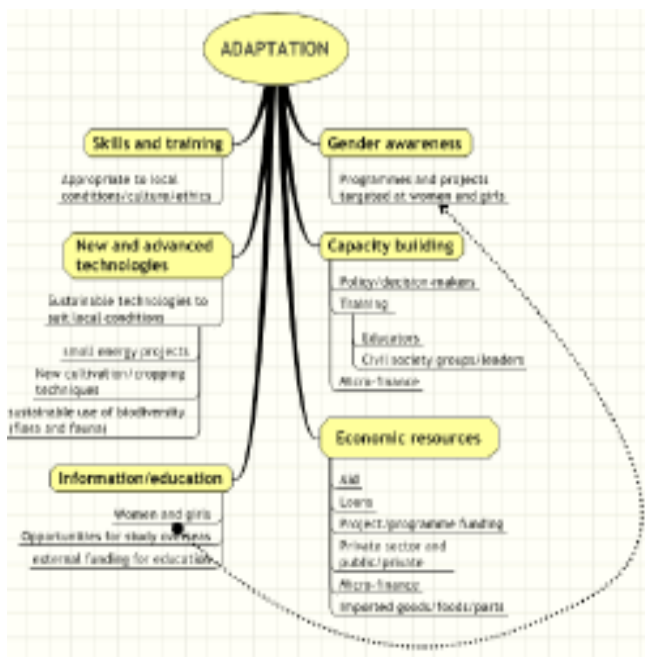


Figure 4. Dimensions of adaptation

## Methodology

Both can be achieved by sensitive processes of participative action research (PAR) with principal stakeholders in advance of crafting adaptation. Evidence obtained from this process can then be addressed by climate science and technological innovation that can be considered by stakeholders for local application. These should consist of measures that add value and fit alongside existing systems without undermining them.

Meanwhile, many practices have become unsustainable and do need revising or replacing to address rapidly evolving biophysical environments demonstrating reduced productive and carrying capacity. However, no adaptation strategy is likely to provide sustainable solutions to vulnerability unless premised on sound communication strategies that respond primarily to community needs and aspirations.

## Gender

Crosscutting these issues is gender, specifically the reality that climate induced vulnerability impacts women and girls disproportionately. This is because women, who already suffer unequal levels of impoverishment, are principal workers in climate impacted processes and activities. As providers of water and fuel, nurses, cooks, cultivators and raisers of small livestock, women are at the cutting edge of climate impacts and therefore need to be consciously mainstreamed into adaptation planning and decision-making.

Vulnerability affects societal and cultural cohesion, threatening conflict and out-migration from affected regions. The technology behind actions that become successful and sustainable must also

be transferable and flexible so that they can be replicated and upscaled in other regions and ecosystems. This aspect of transfer of skills and developing capacity at all levels from community to national government is central to ENDA's ethos. African institutions and organisations must focus on the needs and sensitivities of policy and decision makers at all scales. This can be achieved by recognising the different short and long term agendas of such institutions. While adaptation addresses vulnerability to climate factors over the longer term, the agenda of most decision-makers is conditioned by relatively short stays in office, and the need to retain credibility and produce results in politico-cultural environments suffering the same lack of capacity and underdevelopment as their socio-economic counterparts.

## The vitality of policy

For national policy makers, required to mainstream climate into regional and national development planning, there is a higher recognition of the need to focus on such issues. However, vastly increased understanding of climate issues is required at policy-making level. Local and national NGOs that interact with policy makers must keep a sense of balance and address adaptation through advocacy that specifies definable vulnerabilities, that are adequately researched through social as well as physical science lenses.

By adoption of these principles, ENDA believes that adaptation to climate change can have a positive and enabling role in local and national development. Adaptation can create choices and alternatives to counteract the pervading gloom that has typically surrounded climate change and socio-economic development in Africa in recent decades.

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