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Climate change as a silent disaster: Testimonies from Stories by Rural Communities in Tanzania

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The elderly, children and women are the most affected; induced rural-urban migrations and family separation that increase the risk of HIV/AIDS spread.

In climate over time, whether due to natural variability or as a result of human activity (IPCC, 2007). Ngaira (2007), maintains that there is a strong evidence that increase in green house gases (GHGs) have led to global warming, sea level rise and space-time changes in climatic zones around the globe, including Africa and Tanzania.

For instance snow cover in Mountain Kilimanjaro has decreases by about 50% since 1960s, land surface temperature increase in some regions noted (Kilimanjaro, Arusha, Mbeya) and other extreme evens such as drought and floods. The agriculture sector especially in African countries has been worst affected by climate change. Hope (2009:455) indicated that 'majority of the African population derive their livelihood from agriculture which is the largest economic activity in the continent'. Hope (2009:456) further observed that in Africa small scale agriculture that is practiced by many farmers 'relies heavily on rainfall for the provision of water for crops' and climate change creates havoc for African farmers.

The International Fund for Agricultural Development (IFAD) data suggest that 50 percent of the developing-countries' rural population are smallholders farmers (farming

3 hectors or less of crop land); and 25 percent are landless, which may have included some agricultural labourers, non pastoralist livestock keepers, and poor people not engaged in agriculture (IFAD, 2000).

The Sub Sub-Saharan African countries mostly affected by drought include Burkina Faso, Mozambique, Rwanda, Somalia and Tanzania, Malawi, Kenya, Nigeria, Somalia and Sudan; while Mozambique and Tanzania are also prone to floods 1(IFAD, 2000). In addition, Thompson et al. (2010:2719) suggest that apart from projected warming or rainfall deficit the negative impact of climate change could also be due to vulnerability of the population in Sub-Saharan Africa. Furthers, he indicates that Africa is highly vulnerable to climate change due to 'social, economic and political constraints that determine the capacity of human systems to cope with external stressors such as climate change'.

Which social groups are most affected by climatic changes?

In Tanzania, the climate change has also been observed. For example, a mean annual temperature increase of 10°C has been recorded since 1960 and rainfall decreased

Page 2 | ESRF Policy Brief

at an average rate of 2.8 mm per month and 3.3% per decade. Furthermore decrease in rainfall occurred in southern part of Tanzania (Mashingo, 2010). "It is predicted that extreme events such as drought, floods, tropical storms and cyclones are expected to become more frequent, intense and unpredictable in future. Other adverse effects will include negative impacts on food production, energy and water supplies, as well as a decrease in the population health, particularly in rural households which represent the majority of the country's inhabitants (Maclean, 2009)".

Washington et al., (2006:1355) indicating that poverty and underdevelopment in sub-Saharan Africa is partly due to 'difficulty in coping with climate variability in a continent subjected to frequent droughts, floods, high temperatures and land degradation'. Although some agriculture related activities provide only temporally employment or seasonal, with decline in rains, wage workers that are being used during harvesting will have no or little employment. This chain of decline in economic activities with the decline of crops output also affect crops middle men who buy the produce from farmers will have no work with no crops to buy and sale.

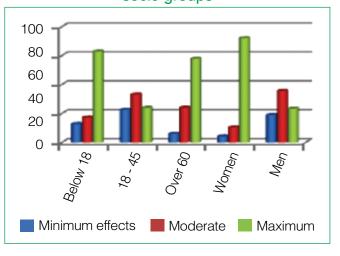
This results in reduced income for the agricultural marketing chain which includes; farmers, the laborers, and the middle men who buy from farmers. This climate change related decline in agricultural output, employment and income has another negative consequence in food and nutrition security as less food is produced. Moreover, due to reduced crop output, the little food harvested makes food expensive and this will affect negatively everyone in the community and country in general.

Farmers indicated the due to reduced crop production and reduced income in bad seasons, farmers face problems in paying dependants school fees. In addition farmers in Tanga, Iringa, Mbeya and Kagera indicated other challenges they face include high cost of living due to high cost of food prices as they said:

"we lack money to take our children to school, hospital as diseases have increased due to dust as a result of lack of rain, poor health and poor quality of life especially with children and food is not enough to feed the family, people suffer from hunger and malnutrition. In dealing with these changes young people have migrated to towns looking employment. Families get separated as parents especially fathers have to move and look for employment elsewhere".

When villagers were asked to rank among the population which one was more affected with the current climatic changes; their perception was that although all socio groups were more or less affected comparing children below 18 years, youth at the age of 18-45 years, men, women and elderly; the population group that has been mostly affected were mainly women, young children and the elderly.

Villager's perception on most affected socio groups



Males between the age of 18- 45 years are less affected because they have the "ability to relocate elsewhere' from the severely affected areas and probably look for alternative sources of employment in the country, leaving the elderly (60 years and above), women and children behind with limited assistance. Apart from economic hardship associated with climate change that reduce farm productivity, women also said that they have to work longer

and suffer psychologically as they have to think hard on how to feed their children, disables or elderly. During the interviews in visited villages in Iringa, Mbeya and Tanga region women said that "nowadays we have to work hard to feed our families, walk very long distance to look for water and firewood and sometimes we have to get up midnight to go and fetch water. Men sometimes migrate to towns and turn into alcoholics while mothers and children suffer back home. Old people and children have no means to look for alternative ways to access food that is why they are badly affected especially those with no children to assist them". The elderly and children are dependants and tend to suffer more. They also conveyed that "due to lack of foods in their families, children suffer from malnutrition and sometimes parents cannot pay for their school fees and other educational needs".

Climate Change - induced migrations

The literature on climatic change indicate that one of its effects will be a rise in rural –urban, and geographical migrations induced by global changes as they are pushed to other areas seeking new livelihoods. There are new terminologies to explain such events such as; environmental refugees, ecological refugees, environmental, migrants, environmental impelled migrants, environmentally displaced persons, and climatic migrants (Alga and Kuncek, 1998, Dow et al, 2005 and ACBF, 2012).

The UN Human Development Report in 1994 introduced the idea of human security which is function of 'safety from chronic threats of hunger, diseases, and repression and protectionformsudden and harmful disruptions in daily life (UNDP,1994:22-24). From this report in the recent years has emerged the term 'environmental refuges', this is used to describe a growing wave of people displaced by environmental problems. In Tanzania such events include the Maasai, Sukuma and other pastoral group who migrate from one place to another for pasture, water and other reasons (e.g those migrated to Ihefu, Rufiji delta and other places). This also include an increase in

the wave of young people who migrate from rural to urban areas such as Dar es salaam to seek for employment and other opportunities; these migration movements is attributed to the fall in land productivity attributed to climatic variation as climatic change is closely linked to environmental degradation with extreme weather events like droughts and floods leading to desertification, erosion, water loss, pollution and river siltation (ACBF,2012).

The discussion with some villagers in Pemba, Kagera, Shinyanga indicated that most of the school graduates (standard seven, formfour and six) migrate to urban areas to look for other livelihood alternative as agriculture is no longer paying due to low productivity of which environmental changes is among the reasons. They also expressed these days even older men sometimes migrate temporally or permanently to towns to seek employment opportunities. Hence climate change is said to have created or increased rural urban migrations. The same picture was seen in the 2011 National Panel Survey Report.

Climate change and HIV/AIDS Spread

The discussion with some interviewed villagers in places such as Lushoto and Muheza in Tanga region, Shinyanga, Mtwara and Kagera indicated that their perception was this seasonal rural urban migration being induced by climatic changes has been a primary cause of HIV/AIDS spread. This so because when men leave their families behind and go to urban areas, they sometimes engage in extra marital sexual relationship with other partners and get infected with HIV. When they return to their villages and wives they continue with life/partners without realizing they have contract HIV, hence climate change to them was in one way or another associated with HIV/AIDS spread as they cause nobilities and families separations.

Although according to the villagers they had examples of such incidences in their villages. Such village perception needs to be verified by conducting a study that will investigate the link between climate change, HIV spread and

Page 4 | ESRF Policy Brief

rural urban migrations in the country. However, the literature identifies mobility as one key driver for HIV epidemic, a study by Kevin et al. in South African miners provided a link between mobility and HIV spread. Moreover, in Tanzania the mobile groups such as long frequent travelers such as drivers have been identified as risk people as far as HIV spread is concerned.

Policy Massages

- With climatic changes the most affected groups are women, children and the elderly. Special attention needs to be given to these groups when mitigation and social protection measures are prepared as they can easily fall into poverty due to the ongoing worldwide climate changes.
- Seasonal rural urban migration being induced by climatic changes has been perceived one primary cause of HIV/AIDS spread. Such village perception needs to be verified by conducting a study that will investigate the link between climate change, HIV spread and rural urban migrations in the country.
- 3. Climatic changes have been mentioned by the interviewed villagers as causing a rise in rural –urban, and geographical migrations as people are pushed to other areas to seek new livelihoods. There is a need to take climate change problem as a serious country disaster and integrate it in all our plans future

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