

Mitigation and National and Sub-National Response to Climate Change Institutional Architecture in Southern Africa: the case of Zimbabwe.

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Paper Presented at the International Symposium on IPCC AR5 WG111 Chapters 13-16, organised by The Global Industrial and Social Progress Research Institute (GISPRI), 5-6 July 2011, Tokyo, Japan

Abstract.

Despite the existence of the Environment Management Act of 2002, Zimbabwe neither has a climate change policy, climate change strategy nor national adaptation strategy. Instead, there is an array of uncoordinated programmes and activities, and pieces of legislation on climate change. With reference to the later, there are several pieces of legislation that directly and indirectly bears on climate change.

In combination, the legislation and policies constitute what can be best described as Zimbabwe's intended national policy on climate change. It is important to note that the Government of Zimbabwe is already rolling out climate change related activities that include adaptation and mitigation. This short presentation attempts to highlight Zimbabwe's Climate Change in the context of the Southern African Development (SADC) context.

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What is climate change?

- The IPCC (2007) defined climate change as follows;(i) Climate change refers to a change in the state of the climate that can be identified (...) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer whether due to natural variability or as a result of human activity.
- UNFCCC defined it as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

Evidence of climate change in Southern Africa

- The climate of Southern Africa follows a pronounced gradient, with arid conditions in the west and humid conditions in the east(UNEP and ICRAF, 2006) as cited by (Kandji: 2006)..
- Adverse effects of climate change in the world today are evidenced by more devastating and frequent natural disasters with developing countries being the most vulnerable. Earth temperatures and associated impacts on physical and biological systems are increasing.
- The world is experiencing frequent extreme weather events like droughts, floods and storms and these are attributed to climate change. Sub Saharan Africa has experiences recurrent droughts since 1990 (90/91, 91/92, 92/93, 93/94, 94/95, 97/98, 01/02, 02/03, 04/05, 06/07) causing massive drops in crop yields (Chasi, 2008).

Consequences of climate change

- Climate change is threatening natural resources management, health of the people, food security, and economic development through up-scaling of natural disasters e.g. droughts, floods, and cyclones. SADC's capacity to address these is very low (SADC, 2008b).

Responses to climate change at Regional Level:

- The SADC regional and its member states have not been docile on issues of climate change. They are parties to various international conventions on climate change such as the United Nations Framework Convention on Climate Change (UNFCCC), the Montreal Protocol, the Kyoto Protocol, the United Nations Convention on Biodiversity (CBD), and the United Nations Convention to Combat Desertification (CCD).

Mitigation strategies

- Mitigation is defined by (IPCC,2007) as a human intervention to reduce the sources or enhance the sinks of greenhouse gases. Technological change and substitution that reduce resource inputs and emissions per unit of output (...). With respect to climate change, mitigation means implementing policies to reduce GHG emissions and enhance sinks.
- The current 4% of the global emission that Africa is contributing will increase unless something is done. Mitigation strategies call for reduced use of fossil fuels and resorting to renewable ones. However this is expensive but at the same time offers Africa the opportunity to exploit its comparative advantage in possessing vast forests ,solar energy , bio energy and improved land use management.

Policies and legislation on climate change in SADC

- At the SADC level, a number of protocols have been developed and signed by Member States in areas such as water; trade; education and training; mining, tourism; wildlife conservation and law enforcement, fisheries, and forestry. The development of a protocol on environment is underway. Unfortunately, in most of them climate change has not been referred to in great detail (SADC, 2008b).
- A study that was carried out by Chishakwe (2010) cited a number of gaps that exist in mitigation and adaption initiatives that are currently being implemented by SADC countries. At the regional level programmes focussing on sectoral planning are limited to a few sectors. In terms of mitigation Chishakwe (2010) argued that there are very few regional programmes that aim to develop best practices to enhance carbon sequestration and reduce emissions. Current focus on energy is not comprehensive as it is limited to biofuels development and to a lesser extent to the development of energy policies.

- Due to the extent of vulnerability of people in southern Africa, the capacity to adapt and mitigate the adverse effect of climate is highly inadequate. According to the SADC region, successful implementation will depend on a number of factors as articulated in box below:

Box 1

- **Political will; availability of resources especially funding, institutional and human resource capacity.**
- **The need for a viable capacity set up at policy and legislative levels.**
- **Full participation by key stakeholders at regional and national levels (especially the involvement of the rural poor, in program planning and implementation) especially in fostering equity and accountability in the quest towards sustainable development in the SADC Region in line with the Millennium Development Goals (MDGs).**

Source: SADC (2008b)

This therefore calls for formulation and implementation of mitigation and adaptation strategies at all levels in order to reduced the impact of climate change on southern African economies.

Climate and Development in Zimbabwe

- Zimbabwe is land-locked country situated in southern Africa, with a total land area of 389 000km².
- Zimbabwe's climate and weather are moderated by altitude and proximity to maritime influence from the Mozambique Channel. The influence of the mid-continental high pressure induces sunny days from May to September, and the passage of the Inter-Tropical Convergence Zone brings stormy unsettled weather, especially in January. There are three seasons:

Key Sectors of the Economy

Agriculture

- Agriculture, mining, manufacturing and tourism form the backbone of Zimbabwe's economy. Agriculture is the dominant sector and is highly diversified, producing tobacco, wheat, tea, coffee, maize, cotton, beef, and dairy and horticultural products.

Energy Sources

- Zimbabwe's energy sector is dominated by conventional energy sources: coal, hydropower, petroleum, ethanol and liquid gas. Zimbabwe mainly relies on coal for its energy, obtained from four thermal power stations, namely Hwange, Munyati,

Harare and Bulawayo. The reliance on coal for energy is set to continue given that the country has proven coal reserves of half a billion tonnes (and possible reserves of up to 30 billion) (GoZ, 2008).

Mitigation

- The energy sector in Zimbabwe is responsible for about 80% of greenhouse gas emissions. Other sources of greenhouse gas emissions include agriculture, waste treatment, industry and deforestation. Zimbabwe has a Greenhouse Gas (GHG) Inventory, which covers carbon dioxide, methane, and nitrous oxide, as required by the Second Conference of the Parties (COP2).
- Government policy emphasizes use of renewable energy technologies as an option for increasing energy access, especially among the rural poor. This policy thrust will contribute towards future greenhouse gas emissions reduction. However, currently there are barriers to adoption of these cleaner energy technologies by industry and to implement projects for the sale of carbon offset credits.
- Broadly, a number of mitigation options have been assessed for Zimbabwe but there has been little implementation (as illustrated by the lack of a single CDM project). Several factors can be attributed to this including the political and economic crisis of the past decade, human resource constraints, the financial cost of suggested mitigation options, and an undeveloped policy framework. Identified mitigation measures considered for implementation across different sectors include the following:

Country Institutional Architecture to Respond to Climate Change

- Ministry of Environment and Natural Resources

The Ministry of Environment and Natural Resources is the key institution responsible for providing a coordinated administrative structure for climate change policy and programmes. Put differently, the Ministry is responsible for coordinating national programmes and activities on climate change. Within the Ministry, specific responsibility for climate change issues lies with the Deputy Secretary for Environment, who serves as the chief negotiator for Zimbabwe at meetings of the UNFCCC.

Conclusion:

Institutionally, Zimbabwe has an array of government agencies, NGOs, civil society organisations, academic and research institutions, and private sector working on climate change. This has been complemented by the existence of various donor agencies, bilateral and multilateral institutions, which actively support climate change programmes and projects. Some of the aforementioned institutions are already working collaboratively on climate change issues at national, regional and international levels. The fact that Zimbabwe is embarking on an economic recovery and reconstruction programme aimed at building a competitive, sustainable and industrialised economy in which there is more equitable distribution of opportunity and reduced poverty, provides an opportunity for integrating climate change policies and programmes in national development programmes which lie at the heart of the economic recovery and reconstruction programme. However, challenges still exist. These relate to limited institutional coordination and institutional capacity on climate

change issues.

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