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Contacts: The Director Climate Change Management Department, Tel: +263 4 701681-3, Email: climatechange@environment.gov.zw

# Climate Change: A threat to Zim-Asset

Elisha Moyo

ZIMBABWE's national economic blueprint, Zim-Asset, crafted to achieve sustainable development and social equity anchored on indigenisation, empowerment and employment creation and propelled by the "judicious exploitation of the country's abundant human and natural resources", recognises the country's susceptibility to perennial floods and droughts caused by climatic changes emanating from global warming.

Below are some of the specific threats and initiatives that seek to build resilience to climate change while ensuring sustainable development.

#### Severe Storms: A threat to life and property.

The country has made significant efforts to ensure everyone has a roof over their heads, in view of climate change more may still need to be done to ensure that every building being erected is able to withstand the ever-increasing weather and climate vagaries.

Many families have been homeless, without food and dumped in the cycle of poverty by very short-lived high impact (often 15-minute) strong winds that would have swept through the community.

Zimbabwe has also witnessed disastrous situations in such communities as Bindura and Musana (February 2013), Mt Darwin Kamutsenzere (November 2012), West Nicholson and Mberengwa (April 2013), Chivi (January 2013), Rutenda, Chilonga and Chiredzi.

These are just some of the few cases but the trend shows an increase in such incidents and threatens many lives.

Further studies have shown that these cases are set to increase as the atmosphere warms.

With the 2015 /2016 rainy season seems to have already started on a warmer side with a heat wave being experienced in most parts of Botswana and is the generally prolonged high temperatures are anything to go by more needs to be done to save life and property.

The extreme heat coupled with less rainfall and prolonged dry spells is a recipe for very violent storms which gush out very destructive winds followed by heavy hailstorms which destroy everything on their parts.

#### Need for Preparedness and resilient infrastructure

There is, however, need to look at areas that need improving in preparation of the forthcoming agricultural season especially housing durability in various parts of Zimbabwe particularly in rural areas.

The situation is further worsened by weak and fragmented early warning systems and response capacity.

This calls for the need to develop building codes for rural areas and making an effort to ensure that each homestead has at least one robust building that can withstand extreme weather during such storms.

The need to streamline climate change even in different engineering disciplines inclusive of roofing sheets design and general infrastructure design cannot be over-emphasised given the lessons learnt from past experiences.

Zimbabwe as a country cannot keep relying on historical climate datasets when the future



is going to be different from the past due to climate change.

It is time all players come together, plan together for sustainable development.

**Food Security and Poverty Cluster** The threats to food nutrition and security are known to all but Zimbabweans may be asking what can be done to ensure food security at household and national level.

The key is to increase adaptive capacity and this is closely linked to poverty eradication. This could be complex; needing time and space, some of the ways of increasing coping strategies and adaptive capacity include devel-

oping a culture of insurance, other than irrigation and diversification. There is no need to invest tens of thousands of dollars while relying on the increasingly erratic

rains, without any insurance. Liquidity could be a challenge and taking huge credit facilities or as loans for rain-fed agricultural purposes is too risky a venture which may easily lock people into a cycle of

Government is making efforts to mitigate the effects of drought by activating machinery for cloud seeding; the final outcomes are subject to development of clouds to a point where they have enough rain to release it when seeded.

In most dry episodes, getting such clouds may be the challenge hence the need for localised interventions. Let's all act on these opportunities

The climate change discourse has several opportunities and initiatives that can be leveraged on to transform the threat to a developmental launch-pad.

At international levels, various means of implementation such as the CTCN, GCF, AF, GEF, CDSF, GFCs among other initiatives are available for all to tap into and fight poverty whilst managing climate change.

Contact the Ministry of Environment, Water and Climate through the responsible departments: Climate Change Management and the Meteorological Services for specific advice, or check the other parts of this supplement.

For more information: http://www. sciencedirect.com/science/article/pii/ S2210983815002497

• Elisha N Moyo is a Climate Researcher with special interest on Weather, Climate Change and Development issues and views expressed in this article are solely those of the author.

## **ELECTRICITY WATCH**

# **SWITCH OFF YOUR** 5PM AND 9PM

### Here's Why:

The reason we ask you to switch off your geyser between 5pm and 9pm, is that the country uses more electricity during this time and supply is under severe pressure. Switching off your geyser helps free up power for other users and relieves pressure on the grid.

Our combined contribution makes a significant difference. Switching off your geyser every day between 5pm and 9pm and, helps us beat the peak to keep Zimbabwe powered up.



"Switch off Switches... Small Actions, Big Difference"







IS CLIMATE change a reality? Can a change in technology be the solution to its negative impacts in Zimbabwe and elsewhere?

If yes then, the Climate Technology Centre and Network (CTCN) provides a possible break through.

CTCN is the operational arm of the United Nations Framework Convention on Climate Change (UNFCCC) Technology Mechanism hosted by the United Nations Environmental Programme (UNEP) in collaboration with the United Nations Industrial Development Organisation (UNIDO) and 11 independent, regional organisations with expertise in climate technologies.

It is aimed at reducing greenhouse gas emissions and improving resilience to changing weather patterns, drought, soil erosion, and other impacts of climate change in developing nations.

It could thus provide a break through for us and other developing countries.

It provides technology solutions, capacity building and advice on policy, legal and regulatory frameworks tailored to the needs of individual countries.

The CTCN promotes the accelerated transfer of environmentally sound technologies for low carbon and climate resilient development for developing countries, in line with their sustainable development priorities, at their request.

The CTCN uses a broad definition of "Climate technology", which is defined as any equipment, technique, knowledge and skill needed for reducing greenhouse gas emissions and adapting to climate change to achieve this goal.

If such technologies are promoted, there will be a shift of climate change management issues from the paper to the ground thus

Potential break-through for climate change management

with the past, ongoing and planned projects, assessments, strategies, actions, target and policies, Zimbabwe can actually attain climate change resilience and follow a low-carbon development pathway.

#### Pre-requisites for accessing **CTCN Services**

For countries to qualify for assistance, each country's UNFCCC Focal Point must appoint a National Designated Entity (NDE) who will serve as a focal point for interacting with the

The NDE will facilitate the request processes and CTCN links with the various national institutions as there is a need to involve sectoral and ministerial stakeholders, financial institutions and private players in addressing Climate Change.

NDES are the country ambassadors to the CTCN as they take the country needs to the CTCN Secretariat for action.

Technical assistance on climate technologies is provided:

- to developing countries at the request of their NDES
- free of charge (with a value up to

- at local, national or regional levels
- to academic, public, NGO, or private sector entities
- for a broad range of adaptation and mitigation technologies
- at all stages of the technology cycle: from identification of climate technology needs; policy assessment; selection and piloting of technological solutions; to assistance that supports technology customization and widespread deployment.

Developing country NDEs are able to submit requests for technical assistance, on behalf of their country's various stakeholders.

This procedure is important so that whatever assistance the country will get is in line with their socio-economic development pol-

Upon receipt of such requests, the CTCN quickly mobilises its global Network of climate technology experts to design and deliver a customized solution tailored to local needs.

The CTCN does not provide funding, but instead supports the provision of technical assistance provided by experts on specific climate technology sectors or requests.

Technical assistance requiring limited sup-

port will be considered a "quick response" which will generally be provided by the Climate Technology Centre (CTC), including its Consortium Partners.

Assistance for a more complicated request is considered a "response project" and will be executed by organizations from the CTCN, with oversight and guidance provided by the

In particular, the CTCN delivers five main types of support which are: technical assessments, technical support for policy and planning documents, trainings, tools and methodologies and implementation plans.

Through these, CTCN removes technology barriers, hence opening new investment opportunities by transfer of strategies and projects from paper into real bankable pro-

Other Benefits for Zimbabwe: Potential benefits for national centres of excellence also come through joining the network in providing tailor-made technologies as highlighted in the application criteria on http://ctc-n.org/

Benefits for national stakeholders which come through as result of partnering with

CTCN include capacity building since it works with national stakeholders to build or enhance endogenous capacities and cost reduction because CTCN provides high quality technical assistance quickly and at no cost through UNEP, UNIDO and its Consortium Partners projects or the Climate Technology Network.

More information can be found on the website www.ctc-n.org.

Zimbabwe has already appointed a National Designated Entity-NDE, Mr Elisha N Moyo (enmoyo@gmail.com or climatechangezim@ gmail.com, +263 4 701 681 /3) who is ready to provide more information on Climate Technology and walk with you to accelerate transfer of environmentally sound technologies for low carbon and climate resilient development.

Call for Proposals

Zimbabwe's NDE is therefore hereby inviting stakeholders to submit draft requests for onward submission to the CTCN Secretariat according to the guidelines on the website.

For any further information, contact the Climate Change Management Department on +263 4 701 681 /3 or climatechange@environment.gov.zw

# 'Propagate messages on climate change'

Herbert Zisengwe

OVERNMENT has urged industry and local authorities among other stakeholders to propagate their messages on climate change through the

Director in the Ministry of Environment, Water and Climate's department of climate change management said companies and organisations should share their story regarding efforts in climate change management be it mitigation or adaptation.

"The implementation of the recently concluded Intended Nationally Determined Contributions (INDCs) on mitigation will be done by the climate change stakeholders including public and private sector.

"There is need for ongoing environmen-

tally sound projects to be made known to the country and the world.

"The Business Council for Sustainable Development Zimbabwe (BCSDZ) has been conducting energy efficiency competitions in industry and the media should be taken as the platform to encourage other stakeholders to join the fight against climate change," he said.

Mr Zhakata said gone were the days when industry and local authorities would fear environmental enforcement authorities and investigative journalists to be on their back, as own climate change management initiatives would give sufficient strength and confidence to present own reports as feedback to society's expectations, all in an effort to promote claims of individual climate change management through everyone's sustainable realisation of dreams.

"With the believed seven billion world population, everyone's dream must be realised, however in a sustainable manner as we only share one planet, the earth.

Industry has traditionally reported on efforts for corporate social responsibility as a legal requirement, commendable as it may, the media presents a platform to present, report and further enlighten market communities on how the two ends can join hands to manage and ensure sustainable existence on the planet," Mr Zhakata said.

Zimbabwe recently mooted climate change policy as enshrined in the UNFCC and as Government leads, expectations are that citizens play pro-active roles in support of the policy for everyone has a responsibility in making the world a better place.

## **Unique Education Power** project gets Govt approval

CLIMATE change is everyone's business with seven billion dreams on one planet and there is need to achieve these is a way that protects and conserves mother earth.

Unique Education Power, a project run by Zimbabwean youths, recently received Government endorsement.

The project aims at educating and promoting communities through local authorities to sustainably manage solid municipal waste by effective implementation of the cradle to the grave concept.

According to the Unique Education Power spokesperson Mr Dickson Bandera, the organisation's climate change mitigation project seeks to make it a reality that on a daily basis, every consumer of any product be it mahewu, fresh milk and bread among other products, religiously collects and discards their containers.

He said this should be done with a goal to safely dispose litre, giving birth to a new culture of preventing littering litter prevention

while promoting effective solid waste management. This, he said, would lead to subsequent reduction of greenhouse gas emissions thus climate change mitigation.

"On June 1, 2015, Unique Education Power for climate change project received Government endorsement, leading to response to funding calls from different external development partners such as IKI from Germany.

"A successful pilot run was carried out at Chiredzi Town Council from October 2014 to April 2015, with eight schools that participated seeing the practicality of the said culture given enough resources for pupil motivation," he said.

The group called on local authorities to adopt the implementation of the project in their communities.

"Corporate organisations and distributors with pride in brands can provide relevant support to the successful 2016 nationalisation of the Unique Education Power for Climate change project," Bandera said.

# Climate change and cotton production

CLIMATE change is any significant change in climate that persists for an extended period, typically decades or longer. In Southern Africa, climate change is expected to result in a rise in air temperature, reduced and poorly distributed rainfall and other weather extremities like flash floods and heat waves.

Cotton is adapted to arid and semi-arid conditions which makes it relatively tolerant to droughts and heat stress.

This is due to its tap root system (at least 2m long) which enables it to extract moisture from depths that other shallow rooted crops like maize, soybean and tobacco cannot.

Therefore we urge farmers to grow cotton as an insurance crop to mitigate against the adverse effects of climate change.

Quton Seed Company (Quton) varieties like QM 301 and QM 302 are indeterminate cotton varieties that are vigorous and develop a strong tap root early in the season.

This helps these varieties to withstand the effects of climate change like mid-season droughts as explained above. These cotton varieties also exhibit complementary growth, that is to say, in case of flower/fruit abortion due

to heat stress caused by climate change, new serve moisture and reduce erosion in case of buds can form other flowers to compensate for the aborted flowers/fruits. This will reduce the yield penalty due to heat stress.

All Quton cotton varieties are tested in extreme environments like the South East Lowveld where temperatures can be extremely high. Therefore, we expect Quton cultivars to withstand the effects of climate change like increased temperatures and marginal rainfall.

However, farmers are encouraged to practise conservation tillage which helps to conflash floods.

Climate change is also likely to result in increased pest pressure due to reduced pest reproductive cycles caused by rises in ambient temperatures. However, Quton cultivars are tolerant to sucking pests like aphids and jassids due leaf and stem pubescence.

Thus cotton can be used as a strategic crop to adapt to the effects of climate change in Zimbabwe and to enable this planting seed is now available selected retail outlets.

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WATER, CLIMATE AND DEVELOPMENT PROGRAMME (WACDEP) ZIMBABWE

The WATER, CLIMATE AND DEVELOPMENT PROGRAMME (WACDEP) ZIMBABWE is cor ate Change Department, relevant stakeholders and the govern

WACDEP, an African Ministers' Council on Water (AMCOW) programme is being implemented by the Global Water Partnership Southern Africa (GWP SA) in collaboration with other partners in 8 African countries. In Zimbabwe the project is being implemented by the Ministry of Environment Water and Climate (MEWC). The 5 year programme being implemented from May 2011 to April 2016 aims to integrate water security and climate resilience in development planning processes, build climate resilience and support countries to adapt to a new climate regime through increased investments in water security. By building climate resilience, the initiative will contribute to peace building and conflict prevention, support Pan-African integration and help safeguard investments in economic development and poverty reduction

#### What has been done to date:

- $Supported \, the \, formulation \, of \, Zimbabwe's \, National \, Climate \, Change \, Response \, Strategy \, (NCCRS).$
- Developed water related sector strategies and Action Plans as part of the NCCRS process. Supported stakeholder engagement for the development of the Climate Change Policy.
- Identified Mtshabezi Mission as a project site for the water, energy and food nexus in order to build the resilience of the community around the Limpopo Basin against climate change related challenges.
- Successfully completed five capacity development training workshops targeted at 11 government planners and 6 decision makers on Water Security and Climate Resilient Development Supported the Zimbabwe Water Partnership (ZWP) to engage with key stakeholders to drive the water
- security and climate agenda as neutral platforms Participated in global, regional and national meetings to review and guide program implementation in
- Conducted Disaster Risk Reduction (DRR) consultations in the four riparian countries around the Limpopo Basin (Botswana, Mozambique, South Africa and Zimbabwe) for the development of the Limpopo Basin DRR Action Plan for reducing vulnerability to floods and droughts.

  Hosted the Zimbabwe SADC Water Week from the 17th-19th of March to gain input into the Regional
- Strategic Action Plan (RSAP) IV. Campaigned through different forums for Goal 6 (dedicated water goal) to be included in the

Sustainable Development Goals (SDGs) which have since been adopted : c/o Upper Manyame Sub- Catchment Council (UMSCC) 9 Connaught Avenue, Contact us

Newlands, Harare, Zimbabwe 04-776773/746376

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Remains of houses whose roofs have been blown by severe winds