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**WACDEP / GWP Capacity Development in Africa 2013-2015**

# **'Economics of Adaptation, Water Security and Climate Resilient Development in Africa' 2013-2015**

**DETAILED ASSESSMENT ON THE CAPACITY DEVELOPMENT NEEDS AND PLAN IN ZIMBABWE**

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## **Executive summary**

Climate Change impacts are being felt across the entire African continent. In Zimbabwe, there is increasing evidence of increasing temperature and reduced seasonal total rainfall leading to water scarcity for agriculture, domestic and industrial uses. The WACDEP Project is supported by the African Council of Water Ministers and 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. The project supports 8 African countries and 5 river basins to better cope with the impacts of climate change.

In Zimbabwe, WACDEP was launched April 2013 and is being coordinated through the Ministry of Environment, Water and Climate. Before the recent institutional changes in Zimbabwe, responsibilities for water management, environmental protection and climate change fell into different departments which slowed down implementation of activities. However, it should be noted positively that climate change issues have been given serious consideration at government level with the setting up of a National Climate Change Task Team which is housed in the Office of the President and Cabinet.

Since the launch of WACDEP in Zimbabwe, the capacity Development training team has been established with appointment of Project Manager, National Training Coordinator and Capacity Development Trainers. This capacity Development team consists of highly experienced academics and researchers who have practical knowledge of water management issues in various forms. Participants for training have also been identified and are drawn from a wide range of government departments who are directly involved in climate change issues from a water perspective. These trainers will go on to train fellow colleagues in their respective bases afterwards. To ensure consistency of participation, the participants have been nominated by their employers and assurance has been obtained that these participants will take part in this programme for its entire duration. Five key decision-makers in the area of water and climate change have also been identified and will also undergo specialised training to gain more exposure on climate change and the implications of some decision made at policy or institutional level.

The training will take place between February 2014 and September 2015. The 5 national workshops to be conducted by the CDteam will end in February 2016 with the 4 regional workshops are to be concluded in September 2015. Thereafter, monitoring and evaluation will take place to assess the impacts of the training programme. The training will benefit from generic material developed through WACDEP but will also consider local conditions. It will fit into existing institutional structures and will complement existing projects and programmes on climate change mitigation adaptation and mitigation in Zimbabwe.

## **Abbreviations Used**

AMCOW	African Ministers' Council on Water
CDTeam	Capacity Development Team
CCO	Climate Change Office (Zimbabwe)
COP	Conference of the Parties (UNFCCC)
Cops	Committee of Permanent Secretaries
DCP	Department of Civil Protection
GHG	Green House Gases
GWP	Global Water Partnership
IES	Institute of Environmental Studies
IWSD	Institute of Water and Sanitation Development
MAMID	Ministry of Agriculture, Mechanisation and Irrigation Development
MEWC	Ministry of Environment, Water and Climate
MEPD	Ministry of Energy and Power Development
MTEF	Medium Term Expenditure Framework
NCCRS	National Climate Change Response Strategy
NCCTT	National Climate Change Task Team
OPC	Office of the President and Cabinet
PMC	Project Management Committee
SADC	Southern African Development Community
UNDP	United Nations Development Programme
UNFCCC COP	United Nations Framework Convention on Climate Change Conference of Parties

## 1. Introduction

Zimbabwe is a landlocked country bordered by Mozambique, Zambia, Botswana and South Africa. The country covers a total area of 390, 580 km<sup>2</sup> of which land covers 386, 670 km<sup>2</sup> while less than 1% is covered by surface water resources. It has a population of 12,900,000. Its economy is dominated by mining (30% of GDP), agriculture (15%), manufacturing (14%) and Tourism (10%). Agriculture provides more than 64% of the labour force while it uses about 80% of the country's internal water resources. Figure 1 shows Zimbabwe and the communication network.

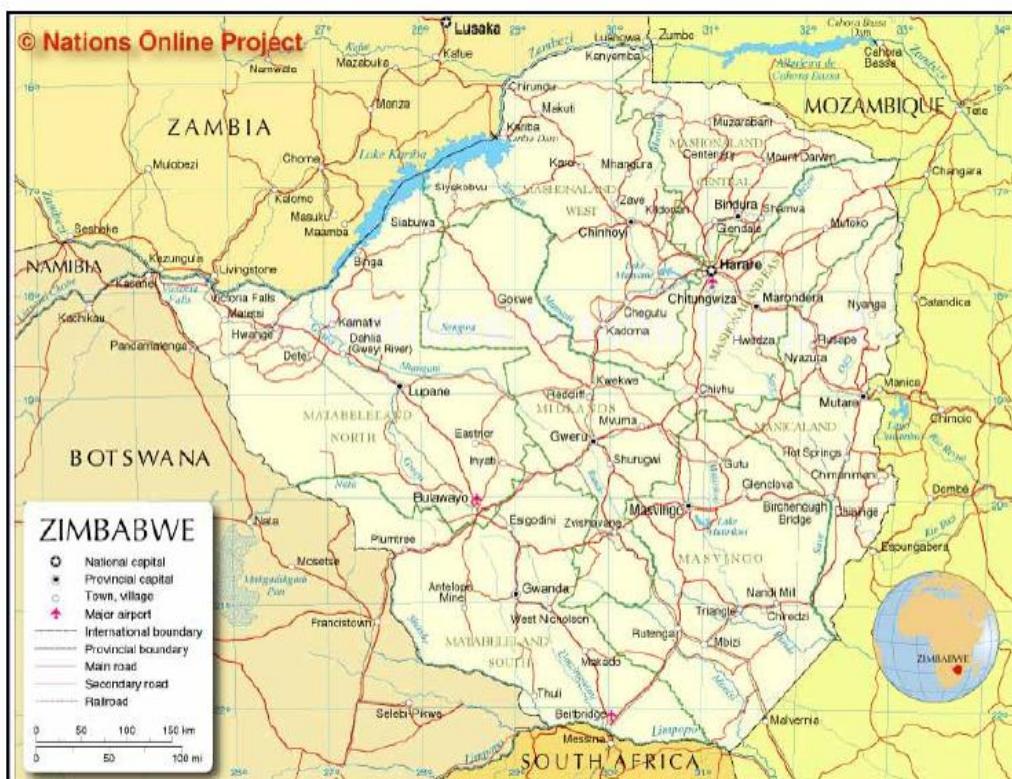


Figure 1: Zimbabwe (Source IES, 2013)

The long term average rainfall is about 800 mm/year although recent trends have indicated a decline. The highlands in the east receive about 2000 mm/year while the drier south and south-eastern parts covering a quarter of the total area of the country receive less than 400 mm/year. The drier southern parts of the country have always faced water challenges for all purposes due to poor rainfall and little runoff into storage works.

Less than 15% of the rainfall received is translated into runoff. In the SADC region, Zimbabwe comes second to South Africa in dam development with more than 200 dams of capacity in excess of 3 million cubic meters constructed across the country. This has translated into a storage index of 7500 m<sup>3</sup>/capita in 2005 compared to Zambia (8970 m<sup>3</sup>), Mozambique (3000 m<sup>3</sup>), Lesotho (1658 m<sup>3</sup>) and South Africa (700 m<sup>3</sup>) during the same period. However, this apparent large storage index does not translate to water security as many sectors are faced with water supply and availability challenges. Projections indicate that, for Zimbabwe, the level of per capita water availability of 2300 m<sup>3</sup>/year in 1990 would diminish to 1300 m<sup>3</sup>/year by 2025 thus

reducing the country's status from vulnerable to stressed. This decrease in water availability is attributed to increased population, growth in demand across sectors, pollution of the available water and climate variability and change. This reduction in water availability has stressed all user sectors with the agricultural sector being hit hardest as evidenced by poor harvests for rain fed cropping systems while irrigated farmlands have suffered from less inflow and other challenges related to accessing stored water. This has serious implications for the national economy as the economy of Zimbabwe is primarily agro-based.

This detailed assessment aims to highlight issues concerning Climate Change and Capacity to tackle these issues. It identifies past and present climate change studies and projects in Zimbabwe. It also elaborates on the links for the WACDEP Zimbabwe and the capacity gaps which may inhibit the progress of the project.

The specific objectives of the study are to:

- Review, based on the rapid assessment report, the major challenges, and on-going and planned processes that the implementation of the Capacity Development Programme should be linked with in each Country ;
- Determine options to strengthen water security and climate resilience development based on the identified capacity Development needs;
- Identify the Capacity Development Team members and participants;
- Elaborate an overall capacity development plan that provides the basis for the programming and budgeting of the implementation of the programme in the country including training workshops and on job mentoring activities.

The WACDEP supports implementation of African Ministers' Council on Water (AMCOW)'s work program. It is being implemented until 2016 in eight countries: Cameroon, Ghana, Burkina Faso, Mozambique, Zimbabwe, Burundi, Rwanda and Tunisia; four transboundary basins: Volta Basin, Lake Chad Basin, Lake Victoria-Kagera Basin, Limpopo Basin and one shared aquifer: the North Western Sahara Aquifer System. The program includes four components namely:

- i) Investments in regional and national development,
- ii) Innovative green solution,
- iii) Knowledge and capacity development, and
- iv) Partnership and sustainability.

The components have 8 work packages including the capacity development component.

## 2. WACDEP- Capacity Development Programme

WACDEP-Capacity development Programme at national level is developed in order to enhance local technical, analytical and institutional capacity for climate resilient development in collaboration with AMCOW, CDKN, UNDP-GEF, CapNet and GWP. This is a key pillar of the WACDEP and NAPs process. Investment planning for climate resilience needs to be informed by sound economic analysis of adaptation.

The objective of this capacity Development initiative is to, among other things, also develop the capacity of planners and technical officers in planning/finance as well as in ministries in charge of environment, agriculture, water, public works, lands and others. The purpose of the training to identify, develop and appraise no/low regrets investments options and integrate these into national planning processes, development plans and programs.

The initiative will contribute to enhance understanding of the economics of adaptation as it relates to medium- and long-term national, sub-national and sectorial development planning as well as in evaluating different adaptation investment projects.

The initiative, targeting government planners will produce a cadre of practitioners who can prepare high-quality economic analyses related to climate change adaptation projects and programs, and support integration of no/low regrets investments into national development and sectorial plans.

The implementation of the capacity Development programme is embedded in GWP and WACDEP regional and country management teams, linked to the UNDP GEF supported portfolio of adaptation projects. Implementation will be conducted in coordination with UNDP country offices, as established following the methodology proposed in the African Union and AMCOW Framework for Water Security and Climate Resilient Development.

The initiative is drawn on local and regional experts as well as promotes North-South and South-South knowledge exchange through involvement of international organizations and academia such as NIRAS with its partners of Stockholm, Yale School of Forestry and Environmental Studies of the USA and the Centre for Environmental Economics and Policy in Africa (CEEPA) in Pretoria. The initiative will also build and benefit from UNDP-GEF's experience in undertaking similar work elsewhere such as the 'economics of the climate change adaptation programme in Asia'.

It will be delivered as a series of training and experience-sharing workshops interspersed with field work, on the job training and application. The Training Programme will be implemented from October 2013 to December 2014 at the national, transboundary and regional level.

The activities of the WACDEP Capacity Development Programme are organized in 8 phases as follows: i) Programme Management; ii) Inception; iii) Learning Material Development; iv) Capacity Development Team Mobilization; v) Regional and Country Assessments and Plans; vi) Production of and Access to Learning Material; vii) Delivery of Capacity Development; and viii) Summary and Reflections.

The initiative is expected to develop the capacities and knowledge required by planners and decision makers in Africa and to enhance skills in the following areas:

- Making an economic case to high level policy makers on the importance of water security and climate resilient development;
- Undertaking climate impact assessment and climate screening;
- Use of economic analysis tools and methods for appraising investment options including use of cost benefit analysis, cost effectiveness assessment and others;
- Robust decision making using the concept of no/low regrets investments;

- Design of financing and investment portfolios for climate resilient development;
- Mainstreaming no/low regrets investments into development processes;
- Monitoring and evaluation of climate resilient development.

### 3. Project Management & Beneficiaries in Zimbabwe

WACDEP Zimbabwe team is composed of the AMCOW focal point, The National Training Coordinator and the Project Manager who are responsible for most of WACDEP functions. A Technical Coordinator responsible for communication will also be appointed to compliment the team. The whole project is supervised by the Project Management Committee (PMC), which is the WACDEP Zimbabwe supreme decision making body. It is constituted by;

- Ministry of Environment, Water & Climate (MEWC) (3 representatives);
- Climate Change Office (CCO) (1 representative);
- Ministry of Local Government through the Department of Civil Protection (DCP) (1 representative);
- Ministry of Agriculture, Mechanization, and Irrigation Development (MAMID) (1 representative);
- Ministry of Energy and Power Development (MEPD) (1 representative)
- Ministry of Finance & Economic Planning and
- GWPSA WACDEP management, PMC appointed Associate Consultant, Institute of Environmental Studies (IES) and Institute of Water & Sanitation Development (IWSD) who are all ex officio members.

PMC meetings are chaired by the Ministry of Environment, Water & Climate. The outputs from the WACDEP Zimbabwe feed directly into the National Climate Change processes headed by National Climate Change Task Team (NCCTT). NCCTT was established in 2010 to provide policy guidance on climate change and to develop a National Climate Change Response Strategy (NCCRS). After acknowledging that climate change issues are cross-sectorial, it was only logical to set up the NCCTT under the President's Office & Cabinet to ensure that climate change issues are recognised at top government levels. This also provides a window of efficiency of execution of tasks hence signifying the importance of climate change to the national agenda. Figure 2 shows the existing organisational structure for Climate Change Management in Zimbabwe. In addition, other projects that support climate change management through small project formulation and policy intervention will collaborate with WACDEP directly and indirectly as the proposed composition of capacity Development trainers, participants and decision makers all influence activities at their respective workstations through training, project identification and project implementation. Typical projects that link with WACDEP activities and yet, may not necessarily deal with the PMC on daily activities include RESLIM, CRIDF, WB and the AfDB supported Save-Buzi Transboundary water management project.

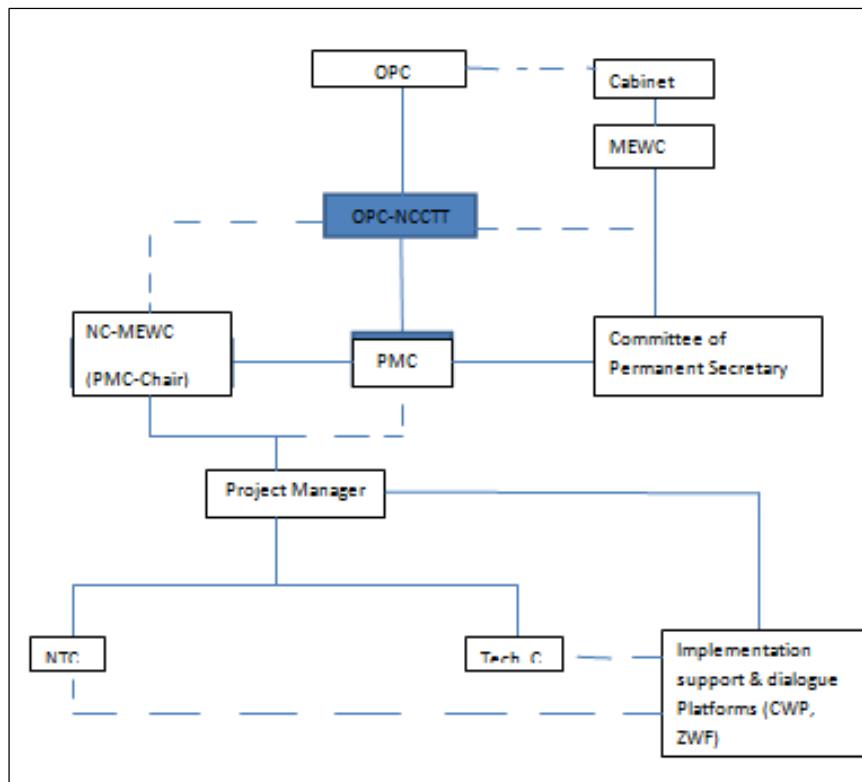


Figure 2: Climate Change Management Structure in Zimbabwe

The capacity Development programme is aimed at Development sustainable capacity within the institutions which have a role in the implementation of WACDEP Zimbabwe and or the elaboration and the implementation of the National Climate Change Response Strategy (NCCRS). The 12 planners, drawn from mostly government departments, will put into practice skills developed over the next year through the implementation of 5 training workshops and the mentorship programme while the 5 decision makers will be equipped with skills to articulate any policy changes that may become necessary. Although the numbers are few to cover all the sectors in the Climate Change programme in Zimbabwe, it is hoped that the capacity Development exercise can in future be up scaled to ensure maximum coverage using the participants to the programme as the core team. The core team that will be trained will also be expected to train others in their respective sectors and institutions.

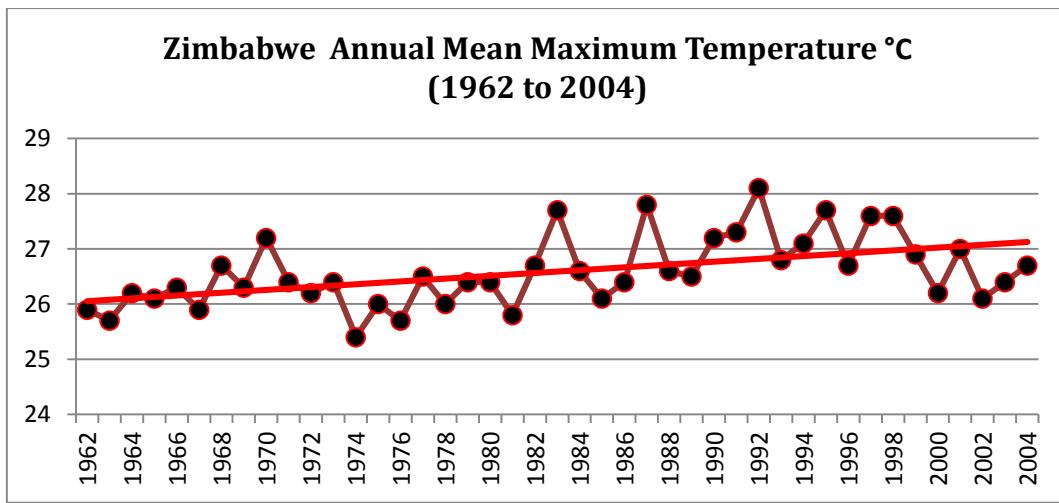
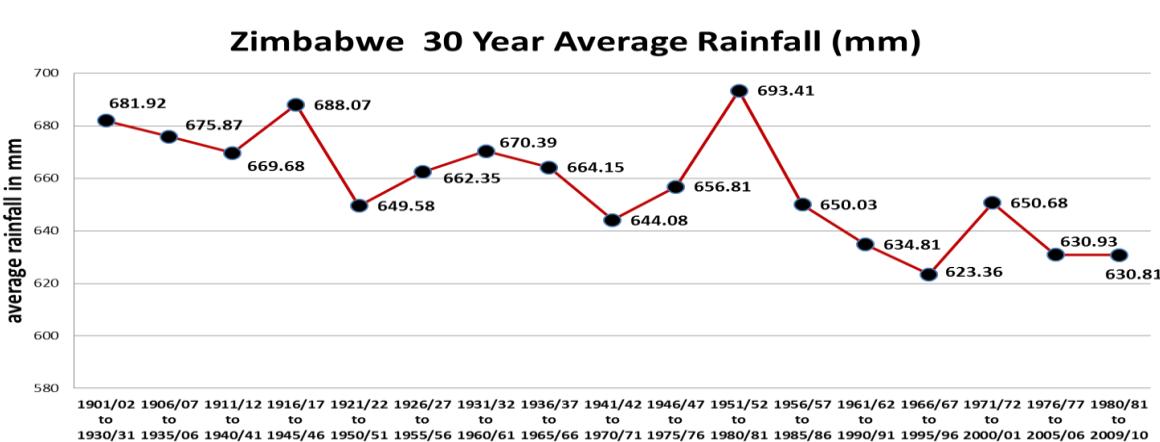
#### 4. Climate Change Activities

Zimbabwe views global climate change as a serious issue even if the country cannot be classified as a significant contributor to greenhouse gas (GHG) emissions. The country was among the first to sign the UN Framework Convention on Climate Change in Rio de Janeiro in 1992 and also ratified the Kyoto Protocol in 2009. Several efforts are being undertaken to formulate strategies that can assist in mitigation and adaptation against climate change through NCCTT and the Climate Change Office (CCO). The Government, through the Ministry of Environment, Water and Climate, is in the process of developing a National Climate Change Response Strategy (NCCRS) in which all climate issues are addressed by sector and strategic actions proposed to respond to climate impacts. A draft report has already been produced and is in circulation for inputs from stakeholders. The process is expected to have been completed by the end of 2013.

## 4.1. Climate Change Evidence

Climate change in Zimbabwe is evidenced by a number of analyses which have been done at global and regional levels as well as trends produced by different sectors in Zimbabwe. The few studies that have been done in Zimbabwe are mostly desktop assessments and therefore cannot be conclusive but already provide indications on the reality of climate change across various sectors.

There is growing evidence that climate change is real in Zimbabwe. At national level, average rainfall has been decreasing while temperature continues to rise (figure 3). Some of the meteorological stations such as Bulawayo actually show greater deviations



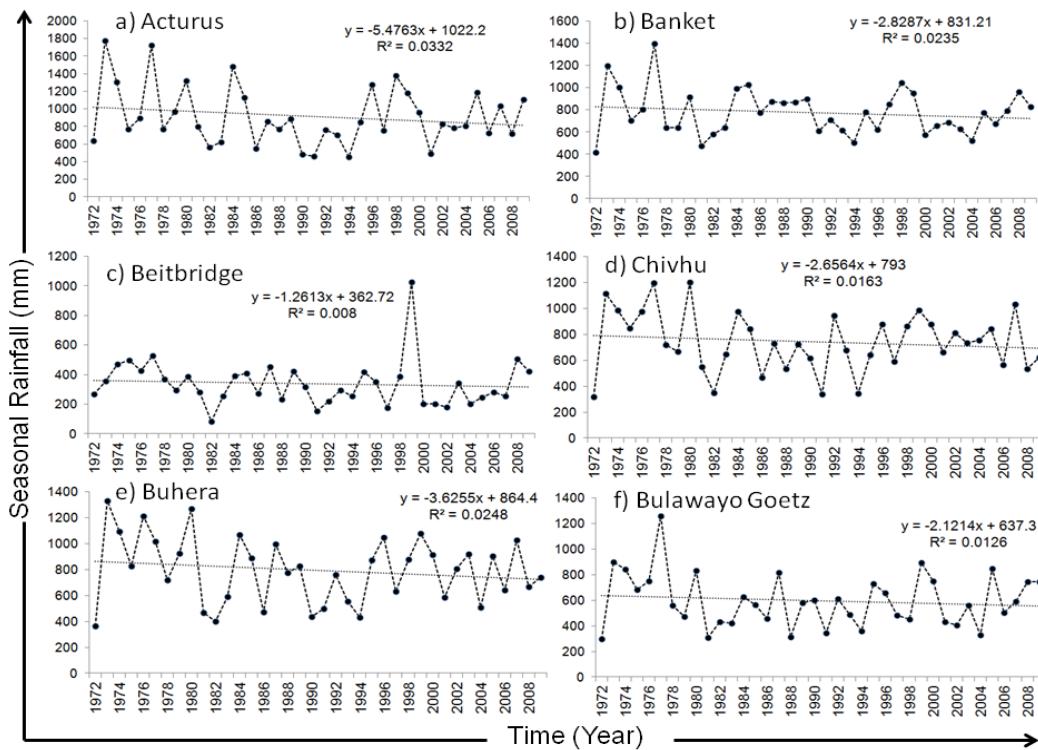


Figure 3: Rainfall and Temperature Trends in Zimbabwe (Courtesy of Zimbabwe Meteorological Office)

Climate change impacts are cross-sectorial as shown in Table 1.

Table 1: Summary of Sectorial Climate Change Effects (source: IIED, 2012)

Sector	Projected climate change impacts
General	<ul style="list-style-type: none"> <li>■ Predicted warming of around 20 C by 2080</li> <li>■ Present southwest-northeast-east rainfall gradient will become steeper</li> </ul>
Agriculture	<ul style="list-style-type: none"> <li>■ General vulnerability of communal agriculture to climate change and variability</li> <li>■ Generally, maize suitable areas will decrease by 2080, while cotton and sorghum suitable areas will increase by 2080</li> <li>■ In the south western parts of the country, sorghum and maize will become increasingly vulnerable to climate change while cotton will become less vulnerable</li> <li>■ In the north central and eastern parts of the country, maize, sorghum and cotton will become less vulnerable</li> </ul>
Water	<ul style="list-style-type: none"> <li>■ Overall, surface water resources are projected to be reduced significantly by 2080 irrespective of the scenario used</li> <li>■ North eastern and the eastern parts of Zimbabwe are predicted to experience a surplus in surface water while the western and southern parts of Zimbabwe are projected to experience a drying up</li> <li>■ Runoff will decrease significantly in the Umzingwane, Shashe, Nata, and Save catchments</li> </ul>
Health	<ul style="list-style-type: none"> <li>■ The area under high to extremely high malaria hazard will tend to increase by 2080</li> <li>■ High malaria hazard will be concentrated in the low lying parts of the country including the Zambezi valley, and the South-east lowveld</li> </ul>
Forestry and biodiversity	<ul style="list-style-type: none"> <li>■ Expected minimum pressure on plant diversity for best and worst case scenarios is 42%</li> </ul>
Rangelands	<ul style="list-style-type: none"> <li>■ Net Primary Production (NPP) will decrease from the current average maximum of over 8 tonnes per hectare per year to just over 5 tonnes per hectare per year by 2080</li> <li>■ This translates to decreased rangeland carrying capacity for both livestock and wildlife</li> <li>■ Southwest and north-western parts of Zimbabwe will experience more reductions in NPP than in other parts of the country</li> </ul>
Human settlement	<ul style="list-style-type: none"> <li>■ Any reduction in available water will lead to increased water scarcity</li> </ul>
Tourism	<ul style="list-style-type: none"> <li>■ With decreasing rainfall and rising temperatures, significant declines in biodiversity are expected to occur in most parts of the country especially the western regions where most of the park estates are located</li> <li>■ Lower resilience of ecosystems to other global environmental changes</li> </ul>

The growing evidence of climate change all point to a bleak future for the whole country if the “No action” approach is adopted. While climate change impacts on water resources already affect all sectors indirectly, there are other direct impacts on agriculture, health, human livelihoods and tourism. A cocktail of mitigatory and adaptive measures are therefore necessary to minimise the effects of Climate Change in Zimbabwe.

## 4.2.Policies and Strategies

The country does not have a policy on Climate change at present. It is currently working on a response strategy (NCCRS) which will guide all implementation plans in Zimbabwe. The crafting of the policy will be the next stage after the strategy has been adopted

## 4.3.Legal and institutional framework

The WACDEP Zimbabwe Chapter falls under the umbrella of the recently established Ministry of Environment, Water and Climate. Prior to September 2013, Environment and Water were under separate ministries while climate was embedded in Environment. Some of the climate change projects were coordinated by the CCO, a UNDP programme but with no direct coordination from the government

#### **4.4.Key Institutions Involved in Climate Change, water security and development in Zimbabwe**

As highlighted before, climate change issues are coordinated at national level by the Climate Change Task Team which is housed within the Office of the President and Cabinet. The National Task Team for Climate Change works closely with the Ministry of Environment, Water and Climate who handle general environmental issues. Line Ministries e.g. Agriculture, Mining, Industry and Commerce, Health, Energy and Transport would manage issues that fall directly under them.

For the water sector in Zimbabwe, some of the institutions that would be actively involved in climate change issues are presented in Table 2:

**Table 2: Key institutions linked to climate and water issues in Zimbabwe**

<b>Institution</b>	<b>Mandate</b>
National Climate Change Task Force	They are responsible for guiding policy on climate change linking Government Departments and Cabinet. At the moment they are more engaged on the global scale as the country is signatory to several UN protocols related to climate change
Ministry of Environment, Water & Climate	Is mandated with overall environmental and natural resources protection, water resource development and management and climate issues Coordinates all policy issues related to water including development and sustainable management
Ministry of Local Government	In charge of all local governance activities involving in municipalities, district councils, chiefs and village governors
Ministry of Agriculture, Mechanization and Irrigation Development	Involved in food security policy issues and advises both commercial and communal farmers on appropriate farming practices. Agriculture is one of the key sectors that will be affected by climate change
Ministry of Industry and Commerce	Coordinates industrial and commercial activities. Some industries will fall victim to climate change impacts but industry will also be challenges to be more innovative and develop more appropriate technologies to deal with climate change
Zimbabwe National Water Authority	Responsible for planning, development and management of water resources and treatment and water supply to small centres. Also technical advisor to catchment councils
Catchment and sub-Catchment Councils	In charge of water management at catchment level. Responsible for allocation of water permits and resource protection on

	the ground.
Environmental Management Agency	Responsible for managing the environment including enforcing environmental protection laws
Councillors and Parliamentarians	Elected representatives of people and communities at policy formulation levels

In addition to the institutions presented in Table 2 there other Civic Service Organisations (CSOs) and non-Governmental Organisations (NGOs) that are involved indirectly in assisting communities to cope with climate change. These are mainly concentrated in the drier regions (Masvingo and Matabeleland Provinces) and are helping communities with micro projects that build resilience against climate change impacts. However, their activities are not well coordinated nationally.

Much as there are structures already set up to deal with climate change, there is not much on the ground to support this as government departments continue with their normal routine. This might be explained by the fact that the national Climate Change Strategy is still being developed. However, this should not stop different Ministries from designing and implementing activities which are climate change focused. Part of the reason why this is not the case is that there are very few climate change experts and not much has been done to link climate change science and normal day to day activities at local levels.

At transboundary level, structures are in place to deal with climate change issues as Zimbabwe is already a member of LIMCOM, ZAMCOM and the Pungwe Transboundary Water Project. These transboundary water organisations should articulate climate change issues in their activities.

There are existing structures and activities which should be enhanced and up-scaled for more benefits to water security and climate resilience. Under ZAMCOM, National Steering Committee involves all stakeholders in the water sector whose activities impact on the Zambezi River. This committee has also co-opted representatives from other catchments as observers. This, therefore, is a sound forum to discuss climate change issues and there have already been presentations and discussions related to that. Nationally, the draft Climate Change Strategy has already identified activities by sector which can be implemented to cope with climate change. Most promising activities should be identified from the strategy and tested as pilots after which they can be up-scaled for more impact.

#### 4.5. Climate Change Initiatives

Only a few notable studies and initiatives on climate change have been commissioned since the early nineties. These projects include studies as well as practical demonstration projects which were carried by NGOs, universities and government institutions. A list of the past and on-going projects on climate change is summarised in appendix 1. Of particular importance is the Coping with Drought and Climate Change Project which was funded by UNDP and GEF and, implemented by the Environmental Management Agency (EMA) from 2008 to 2012. It used data from Global Climatic Models to predict future scenarios for the Save Catchment. The project also implemented some livelihoods projects such as irrigation, crocodile farming as adaptive measures for the benefit of the local communities.

However, these local initiatives have been mainly supported by international organisations whose funding has been dwindling over the years. Most of the studies were mainly sector related and not coordinated at national level. The lack of coordination of these initiatives is one of the reasons why NCCTT was formed. Most of the future studies related to climate change in Zimbabwe will therefore be carried out through the action plans identified through the NCCRS process and will be expected to generate impacts that are recorded at national level.

#### **4.6. Climate Change Issues from Stakeholder Perspective**

A number of issues have come up following outcomes from stakeholder workshops such as the launch of WACDEP in Zimbabwe and NCCRS stakeholder consultations. Additional information was obtained from interaction and literature review covering various sectors related to water. It is important to highlight that climate change is a cross-cutting issue and impacts on the following sectors:

- Agriculture
- Mining
- Industry and Commerce
- Tourism
- Health
- Energy
- Transport
- Fisheries
- Forestry

In addition, climate change, similar to water, also cuts across gender and national governance structures. There is consensus that impacts of climate change on water will therefore cascade to all other associated sectors which therefore calls for accelerated mitigation and adaptation strategies. The capacity Development programme must ensure that the training takes into account a number of opportunities and barrier (threats) which are capacity related (Table 3).

Table 3: Summary of Opportunities and Barriers related to Capacity Development

Opportunities	Barrier
<ul style="list-style-type: none"> <li>• Existence of institutional structures that can be used for solving water challenges.</li> <li>• There is a political will at the highest level (OPC).</li> <li>• The Zimbabwean community at all levels are adaptive and receptive.</li> <li>• Water harvesting and saving technologies are available for application.</li> <li>• Data and historical evidence available.</li> <li>• There is an Indigenous Knowledge System.</li> <li>• There is awareness of water and climate issues in most sectors.</li> <li>• Water issues are in the school curricula.</li> <li>• Funds are available to undertake initiatives around water issues.</li> </ul>	<ul style="list-style-type: none"> <li>• There is lack of definitive policies –</li> <li>• There is no harmony of policies dealing with water and climate change. Need to come up with a Climate Change Policy.</li> <li>• Fragmented legal framework which fails to deter offenders.</li> <li>• Institutions dealing with water and climate change are too rigid.</li> <li>• Lack of foresight and sustainable management of resources.</li> <li>• Inadequate resources including funding.</li> <li>• Ineffective communication across sectors - awareness.</li> <li>• Inadequate access to information even though the information is there.</li> </ul>

	<ul style="list-style-type: none"><li>• Language – most awareness campaigns are framed in English.</li><li>• Climate Knowledge gaps</li><li>• Limited capacity/expertise on water and climate issues</li></ul>
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The capacity development programme will have to focus its efforts on some of these identified issues. Furthermore, it would be preferable that Work Package 5 (demonstration projects) be done simultaneously with the capacity development with some participants being part of the demonstration project. This will ensure that participants within the capacity Development team as well as beneficiary communities benefit from hands-on practices during this important learning curve.

The capacity development programme must also be dynamic to address some of the short comings experienced from previous initiatives involving climate and water. It must include topics covering:

- Analysis, research methods and forecasting
- Cost effective adaptation strategies
- Project financing for water and climate issues
- Incentives and private sector involvement
- Decision support systems
- Material and technology to support Human resources capacity such as models, strengthened data collection and management
- Climate change in Environmental Impact Assessments
- Climate change vulnerability assessment of communities
- Gender mainstreaming into water & climate change related projects
- Case studies
- Awareness raising and media involvement
- Alternative greener and efficient technologies on water use
- Project sustainability

## 5. Training

The capacity development programme in Zimbabwe will provide a platform for influential government and government related organisations to have required capacities to identify, develop and appraise no/low regrets investments options and integrate these into national planning processes, development plans and programs in Zimbabwe. This will enable participants to fully implement some of the work packages as well as create an avenue for future activities/projects after the current WACDEP phase.

Although generic training material has been produced for the whole WACDEP Africa programme, some tailor made concepts will need to be added to address some of the challenges and gaps already identified which are peculiar to Zimbabwe such as those mentioned in section 4.3.

## 5.1.Trainers

### 5.1.1. National Training Coordinator

The training programme is headed by Dr Makurira who is member of WACDEP-Zimbabwe Team. He is the Head of the Department of Civil Engineering, University of Zimbabwe. He has more than 20 years of experience in all aspects water resources management and development as well as capacity development.

### 5.1.2. Capacity Development Team

3 Training Experts (Table 4) have since been identified to form the WACDEP Capacity Development Team (CBT). They are all experienced academics with practical experience of water and climate related issues. They will report through the National Training Coordinator.

Table 4: CDTTeam Composition

Name	Area of Speciality	Role in CB Team
Dr Simon Madyiwa	Water utilisation Irrigation Specialist	Expert Trainer in Hydro-physical issues (water, climate)
Prof Innocent Nhapi	Sanitary Engineering and Environmental Management	Expert Trainer in Policy, stakeholders, vulnerability
Dr Jackqeline Mutambara	Resource Economics	Expert Trainer in Economics and finance of projects

Although the identified trainers will be taking a leading role in capacity Development, the WACDEP management team has also identified individuals within Zimbabwe who will complement this team especially where particular skills may be required and may not necessarily be available within the core team.

## 5.2.Participants

The selection of participants for the Capacity Development Programme was done by the PMC with the assistance from WACDEP Zimbabwe team. The PMC provided guidance on the composition of the list of participants through sector representation.

For Zimbabwe, the initially suggested criterion of inviting applications from potential participants was not applied. PMC felt such a method would result in an unnecessary high number of respondents who are not necessarily linked to the programme. The method of identifying sectors was deemed to yield better results as it would result in a fair representation of sectors which play a pivotal role in the Implementation of WACDEP in Zimbabwe and would be easier to enforce continuity of the selected sector representatives. It would also enable PMC to monitor the participants since all participants were drawn from some government departments forming PMC.

### **5.2.1. Planners**

Planners were drawn mainly from five main departments/ministries making up PMC. Initially water, environment and meteorology fell in different institutions. However, the recently announced government structure has seen the merger of these departments falling under one ministry.

The identified planners are basically practising government employees who are specialist in their own fields. The list of planners and their respective sectors are shown below (Table 5).

Table 5: Planners

Sector	Department	Planners	Position	On-going processes/ initiatives	Corresponding WACDEP WPs
Environment, Water and Climate	Water Resource Management & Development	1. Manatsa Ruzengwe	Chief River Protection Eng.	Lead Ministry on Environment, Climate and Water spearheading the NCCRS process which is also being supported by WACDEP Zimbabwe	
		2. Gerald Mundondwa	River protection Eng.		
		3. Kudakwashe Kayirasora	Hydrologist		
		4. Nesbert Shirihuru	Rural Wash Officer (Economist)		
	Environment	5. Kundishora Mpandaguta	Environmentalist		
	Meteorology	6. Linia Mashawi	Climate Applications Specialist		
	ZINWA	7. Charles Dini	Planning Manager		
Energy & Power Development	Energy	8. Johannes Mukambaiza	Energy Development Officer	Energy; Cleaner energy options such as Solar, biogas	
Agriculture, Mechanisation & Irrigation Develop	Agricultural Extension Services	9.Kennedy Mabehla	Principal Agricultural Extension Specialist	Food; Irrigation development to counter reduced rainfall activity, Adaptive crop varieties	
	Agricultural Economics	10. Alfios Mayoyoh	Principal Economist		
Local Government	Civil Protection	11. Lameck Betera	Principal Officer	Disaster Reduction; Natural disasters forecasting and monitoring projects	
Ministry of Finance & Economic Development	Policy Planning & Coordination	12. Tafadzwa Mushope	Principal Economist	Project financing and policy	

### 5.2.2. Decision Makers

The decision makers were drawn from the sectors where planners were picked from. The main difference was that decision makers occupy the position of Deputy Director as a minimum (Table 6). These will be able to influence some of the decisions which government may take regarding the water, energy and food nexus in relation to climate change.

Table 6: Decision Makers

Sector	Department	Planners	Position	On-going processes/ initiatives	Corresponding WACDEP WPs
Environment, Water and Climate	Water Resource Management & Development	1. Gilbert Mawere	Director	Lead Ministry on Environment, Climate and Water spearheading the NCCRS process	
	Environment	2. Abraham Matiza	Deputy Director		
Energy & Power Development	Energy	3. Raphael Tirivanhu	Director	Energy	
Agriculture, Mechanisation & Irrigation Develop	Agriculture	4.Benard Mache	Director	Food	
Local Government	Civil Protection	5. Sibusisiwe Ndlovu	Deputy Director	Disaster Reduction	

## 6. Linking Capacity Development Programme to national processes in Zimbabwe

The participants and the trainers are expected to play a pivotal role in the WACDEP Zimbabwe implementation also the implementation of other initiatives related to water and climates issues that are relevant for their home institutions. The planners are expected to be fully hands-on practitioners on the water, energy and food nexus. These projects are also expected to enhance work package 5, on demonstration projects.

The decision makers for the programme have been strategically selected to ensure processes from the planners feed directly into any decisions that may be taken at high government levels regardless of the sector

## 7. Capacity Development Plan

The capacity development programme in Zimbabwe will run from December 2013 to December 2014 in line with the WACDEP Africa programme, following tentatively the dates submitted by NIRAS. However since the CB Team members are not full time employees of the programme, there might be some adjustments in the actual training dates but, overall, ensuring that no contact time is lost.

A lot of work will need to be done by both participants and CB Team members prior to the actual training. The CB Team will meet with the WACDEP Zimbabwe team and the participants to formalise the relationship and plan for the coming year. This meeting will also give guidance to the actual dates of the scheduled five workshops and the work which will be done by the participants in between the workshops.

## 7.1. Implementation of the training workshops and on-job mentoring actions to support participants with their home institutions

Activities	Objectives	Participants/ Number	Period	Place	Budget Euros
National Review of the Learning Material (LM) by the NTC, CDTeam and relevant Experts and stakeholders			December 2013	Harare	
Preparation and elaboration of draft action plan by each participant planner			December 2013	Harare	
Start Up Workshop	Review preparations and Learning Material, to get to know each other, and discuss individual Action Plans	17	28 January 2014	Harare	1500
Workshop1: Setting the scene and understanding the problem	To provide an initial overview and sensitization of the framework, present the case for investing in water security for climate resilient development and start exploring some of the methods available to understand vulnerability and climate impacts	17	17-21 February 2014	Chinhoyi	17367
On job mentoring actions support to participants with their home institutions during In between Workshops 1 – 2	To help planners to apply theoretical knowledge in their work in connection with the identified on-going or upcoming activities that the implementation needs to support	12	March 2014	Harare	2000
Workshop 2: Identifying and appraising solutions	To help participants to develop a balanced portfolio of investment options that enhance water security for climate resilient growth and development, to prioritize no/low regret options and to make a case clear economic for investment	12	April 2014	Nyanga	18450

On job mentoring actions support to participants with their home institutions during In between Workshops 2 – 3	To help planners to apply theoretical knowledge in their work in connection with the identified on-going or upcoming activities that the implementation needs to support	12	May 2014	Harare	2000
Workshop 3: Delivering solutions	To highlight to participants the financing strategies for the portfolio of initial no/low regret investment identified at workshop 2 and in intervening period, explain how these can be integrated into existing development planning processes	12	June 2014	Masvingo	16020
On job mentoring actions support to participants with their home institutions during In between Workshops 3 – 4	To help planners to apply theoretical knowledge in their work in connection with the identified on-going or upcoming activities that the implementation needs to support	12	July - August 2014	Harare	2000
Workshop 4: Monitoring and moving forwards and introduction to the framework	To highlight the importance of an effective M& E framework in assessing the value that applying the framework has added, and provide feedback for future iterations and applications, amongst participating Strategic Decision Makers, the content and value of the Framework.	12	September 2014	Harare	30220
On job mentoring actions support to participants with their home institutions during In between Workshops 4 – 5	To help planners to apply theoretical knowledge in their work in connection with the identified on-going or upcoming activities that the implementation needs to support	12	Oct 2014 -February 2015	Harare	3000
Workshop 5: Wrap up, lessons learned	Wrap up the training programme; review activities, outcomes, actual learning taking place etc.	17	February 2015	Harare	3120
Total					52429

NB: It would be more convenient to spread the workshops around the country if budgets permit. For the time being, Harare has been assumed to be the venue for all activities although this may not send a good message where national and cross cutting activities are involved.

Table I: Tentative training Dates

Period	Activity
January 2014	<b>Start Up Workshop:</b> Review & Preparations
February 2014	<b>Workshop 1:</b> Setting the Scene and Understanding the challenges
April 2014	<b>Workshop 2:</b> Identifying and Appraising Options
June 2014	<b>Workshop 3:</b> Delivering Solutions
September 2014	<b>Workshop 4:</b> Monitoring and Moving Forward
February 2015	<b>Workshop 5:</b> Wrapping up, Lessons Learned

The trainings will be spread in some places around outside but near, taking advantage of nearby places that can be used as excursions. Having the training in Harare will be distractive as participants may have to attend to their daily duties at their workplaces

## **8. Participants planners action plans**

A short paragraph will be developed after start up workshop and before workshop 1.

## 8.1.Timeline, activities and responsibilities

Activities	Sub-activities	PERIOD																		Responsible	Collaborators		
		2013			2014												2015						
		O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M				
National Review of the Learning Material (LM) by the NTC, CDT Team and relevant Experts and stakeholders			X	X																Manager, NTC			
Preparation and elaboration of draft action plan by each participant planner				X																Manager, NTC, CDTeam			
Start Up Workshop					X															Manager, NTC, CDTeam			
Workshop1: Setting the scene and understanding the problem						X														CDTeam	NTC, Manager		
On job mentoring actions support to participants with their home institutions during In between Workshops 1 – 2							X													Manager, NTC			
Workshop 2: Identifying and appraising solutions								X												Manager, NTC, CDTeam			
On job mentoring actions support to participants with their home institutions during In between Workshops 2 – 3									X											CDTeam	NTC, Manager		

Workshop 3: Delivering solutions									X											Manager, NTC, CDTeam	
On job mentoring actions support to participants with their home institutions during In between Workshops 3 – 4										X	X									CDTeam	NTC, Manager
Workshop 4: Monitoring and moving forwards and introduction to the framework												X								Manager, NTC, CDTeam	
On job mentoring actions support to participants with their home institutions during In between Workshops 4 – 5												X	X	X	X					CDTeam	NTC, Manager
Workshop 5: Wrap up, lessons learned																	X		Manager, NTC, CDTeam		

## **8.2.Quality assurance, monitoring and evaluation system**

Quality assurance will be maintained throughout the training process. The CB Team, through the NTC, will follow quality assurance guidelines that are applicable to all countries for consistency. Where necessary, adjustments may be made to suit local conditions but only in consultation with the PMC through the Programme Manager. Trainers will be expected to share training material ahead of each workshop and these will be reviewed by the NTC and shared with the Project Management Team. At the end of each training workshop an evaluation will be undertaken where participants will be requested to highlight both strong and weak points for consideration in subsequent trainings. At the end of each training session, the NTC will compile a report on the workshop.

## 9. Recommendations

Different government department in Zimbabwe have different priorities not necessarily water and climate change related. In addition all the planners are from government related institutions which have suffered heavily from brain drain in the past. Although participants to the programme were identified by their respective sectors, which also form PMC, they may in future be reassigned to other programmes and initiatives.

Although this threat cannot be entirely controlled, the strategy of using sectors instead of applications may actually aid the programme. There is need to also continuously update the Ministries/departments especially through their PMC representatives to ensure completion of the capacity development programme by all initially chosen participants.

## 10. Conclusion

The identified capacity development team composed of trainers and participants is the best team that could be identified under the conditions prevailing in Zimbabwe. It is envisaged that participants will be able to input into the other 7 workpackages of the WACDEP programme during and after the training programme

## **11. References**

Government of Zimbabwe, 2012, Zimbabwe baseline Report on Economic Development and Climate Change

IES, 2013, National Climate Change Response Strategy (draft)

## 12. Appendices

Appendix 1: Summary of Past & On-going Climate Change Initiatives in Zimbabwe (Adapted from Government of Zimbabwe, 2012)

Institution	Activities
Centre for Social Studies (Trust)	<ul style="list-style-type: none"> <li>Conducts policy research on climate change and development, particularly effects on local livelihoods.</li> <li>Works with the Ministry of Agriculture on nationwide vulnerability assessments funded by the Food and Agriculture Organization of the United Nations (FAO).</li> </ul>
Chinhoyi University of Technology	<ul style="list-style-type: none"> <li>A project on climate change education and awareness, focusing on agricultural extension officers.</li> </ul>
Department of Geography and Environmental Sciences, University of Zimbabwe	<ul style="list-style-type: none"> <li>Teaches a course on Climate Change and Development for undergraduate and post-graduate students.</li> <li>Contributed vulnerability and adaptation studies to the Second National Communication.</li> <li>Participates in the National Capacity and Self-Assessment study.</li> </ul>
Faculty of Agriculture, University of Zimbabwe	<ul style="list-style-type: none"> <li>A number of projects on the resilience of smallholder farmers to the effects of climate change</li> </ul>
FAO & DFID	<ul style="list-style-type: none"> <li>Climate-smart agriculture, training, market access and inclusive financing</li> </ul>
ICRISAT	<ul style="list-style-type: none"> <li>ICRISAT conducts innovative agricultural research and capacity Development programmes on sustainable development in Zimbabwe.</li> </ul>
Institute of Development Studies, University of Zimbabwe	<ul style="list-style-type: none"> <li>Conducts research on development policy and practice in Zimbabwe.</li> </ul>
Institute of Environmental Studies, University of Zimbabwe	<ul style="list-style-type: none"> <li>Conducts environmental research on ecological, social and economic consequences of environmental change.</li> <li>Provides three services: research and development; education and training; information, consultancy and networking.</li> </ul>
Midlands State University	<ul style="list-style-type: none"> <li>A project on Development adaptive capacity to cope with increasing vulnerability due to climatic change with communities in southern Zimbabwe, funded by the UK Department for International Development (DFID) and the International Development Research Centre (IDRC).</li> </ul>
Scientific and Industrial Research and Development Centre	<ul style="list-style-type: none"> <li>A component on climate change under the Cleaner Production Initiative.</li> </ul>
Southern Centre for Energy and Environment	<ul style="list-style-type: none"> <li>Conducts policy and technical studies to support the introduction of sustainable environmental practices.</li> <li>Provides support for renewable energy and cleaner production technologies, activities that are relevant to climate change.</li> </ul>
British Council & Unesco	<ul style="list-style-type: none"> <li>Implementing a project called 'Our Climate, our Future', which seeks to raise awareness on the effects of climate change in Zimbabwe</li> </ul>
British Council, IES & Department of Civil	<ul style="list-style-type: none"> <li>Implementing a project to incorporate climate change into the Integrated Water Resources Management Master's</li> </ul>

Engineering, UZ	Programme
DfID and ZERO	<ul style="list-style-type: none"><li>Commissioned research under the 'Meeting Information and Advocacy Needs for Adaptation to Climate Change in Zimbabwe' initiative</li></ul>
GEF Small Grants Programme	<ul style="list-style-type: none"><li>Funded more than 20 small projects on climate change in Zimbabwe since 1993, which have supported activities that contribute to the reduction of greenhouse gases while contributing to local development</li></ul>
Zimbabwe Meteorological Services	<ul style="list-style-type: none"><li>Climate change evidence using parameters such as rainfall, temperatures, extreme events</li></ul>
ZINWA	<ul style="list-style-type: none"><li>Effects of Climate change in the Pungwe basin</li></ul>
WWF Zimbabwe	<ul style="list-style-type: none"><li>Climate Change Vulnerability Assessment in Mutoko district</li></ul>
Ministry of Energy & Power development	<ul style="list-style-type: none"><li>Clean energy projects</li></ul>
EMA, UNDP, GEF	<ul style="list-style-type: none"><li>Coping with Drought and Climate Change</li></ul>